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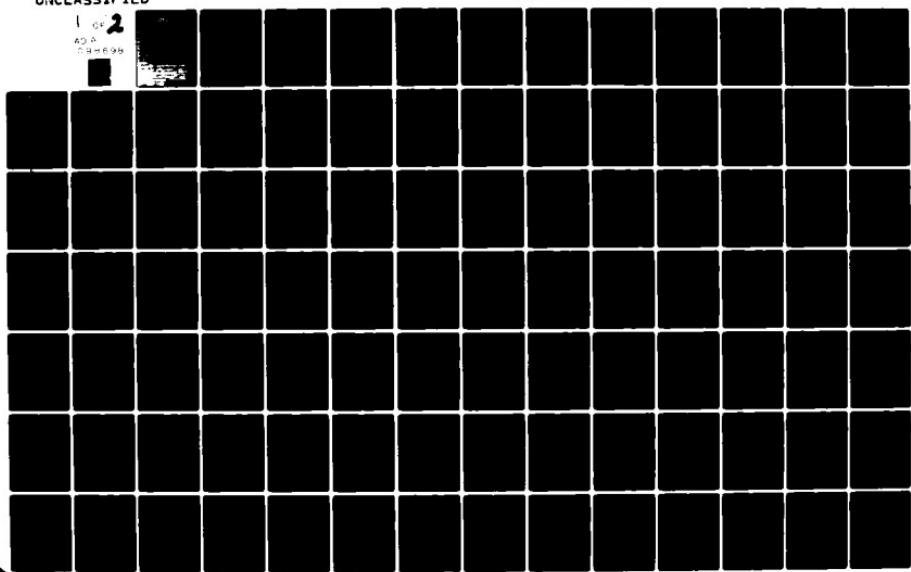
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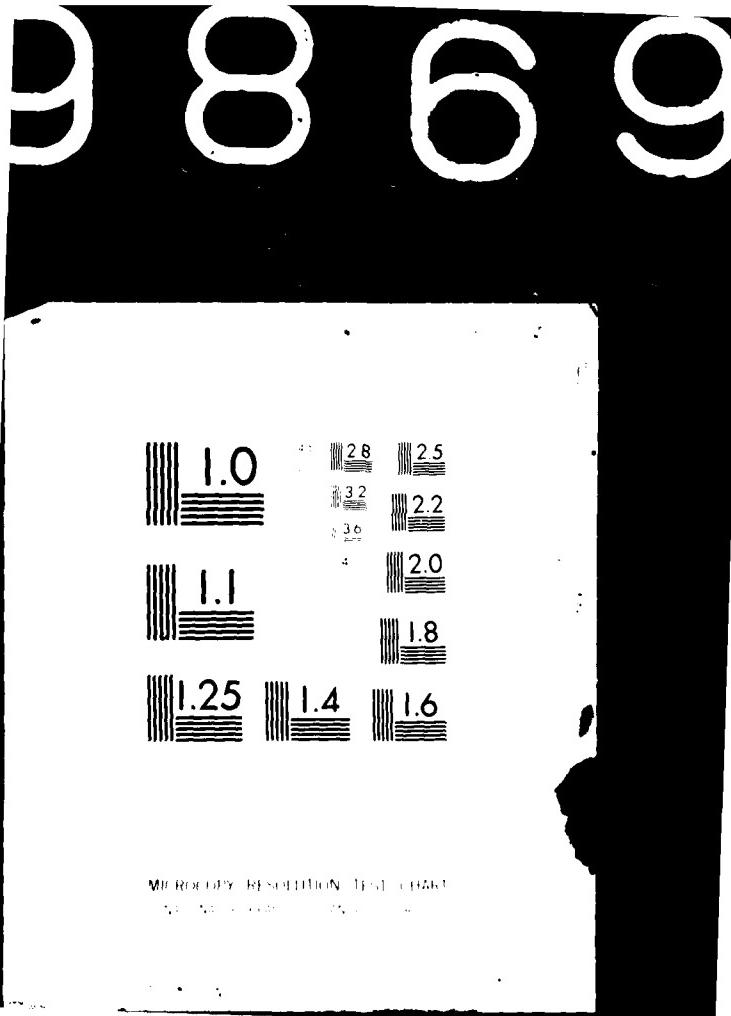
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MARINE SEARCH, RESCUE
AND EMERGENCY PREPARATION STUDY

prepared for

THE UNITED STATES COAST GUARD

Grant Agreement No. 1401-81

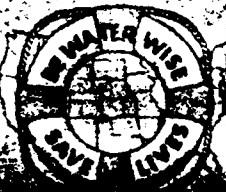
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16. Abstract (Limit: 200 words) the National Association of State Boating Law Administrators. (NASBLA).				
<p>The National Water Safety Congress and its study team made a survey of the capability for search and rescue on the inland waters of sixteen central states dealing mainly with waters administered by federal agencies, using their contacts with the Corps of Engineers multi-purpose water managers made during the 1972-1973 survey, concerned with the status of water safety on those same waters.</p> <ul style="list-style-type: none"> More than 200 questionnaire packets were sent in three mailings over the next several months to Corps of Engineers Reservoir Managers and dam operators, Bureau of Reclamation Safety Officers, Tennessee Valley Authority reservoir and dam managers, utilities, the National Park Service, certain River Authorities, and Irrigation Districts. <p>Respondents included 107 Corps of Engineers Lake or River System Managers, safety officers and rangers (including five Indiana lakes "leased to the State"); 31 TVA lake managers or safety officers, eight Bureau of Reclamation project managers or safety officers; and 30 other resource managers including the National Park Service, U.S. Forest Service, Irrigation Districts, River Authorities, private and public power companies. (cont. on in block #15)</p>				
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Report on

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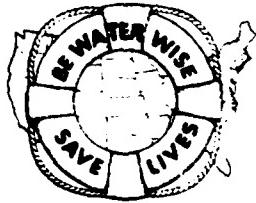
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THE UNITED STATES COAST GUARD

(Grant Agreement No. 1401-94)

by

The National Water Safety Congress



September 1975

A large, black, rectangular stamp with the letters "DTIC" at the top. Below "DTIC" is the word "REF ID: A65102". In the center, the date "MAY 11 1981" is stamped vertically. The stamp has a slightly distressed, high-contrast appearance.

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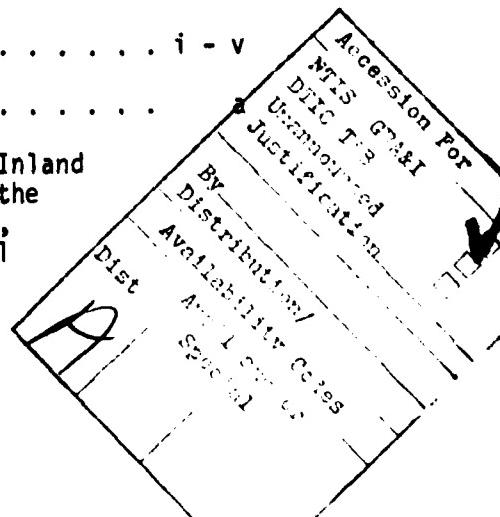
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INTRODUCTION

The Problem:

Inherent in the responsibility placed upon the United States Coast Guard to regulate and enforce boating activity under the 1971 Boating Act, was the search and rescue of lives and property as well as accident prevention and investigation.

The Coast Guard has operated on coastal waters and navigable rivers for many years, but has only minimal acquaintance with such activities on inland lakes. In attempting to evaluate their role in assisting the States fulfill their obligations under the Act, the Coast Guard had found that there was a void in data of any type on the capability for search and rescue where the Coast Guard was not directly involved.

That few formal SAR plans existed for inland waters or, where they did exist there was no organized function, was the basic premise held by certain responsible officers of the Coast Guard and other Federal and State personnel who are engaged in operating or managing recreational waters. An opinion that SAR was in reality only a body search activity, with too small a percentage of rescue; that in too many instances a relatively small period of time spent in timely search activity might have resulted in rescue, was predominant.

Purpose of Study:

It was proposed that the National Water Safety Congress and its study team of Isabel and David Carr, would make a survey of the capability for search and rescue on the inland waters of sixteen central states, using their contacts with the Corps of Engineers multi-purpose water managers made during the 1972-1973 survey, concerned with the status of water safety on those same waters. The National Association of State Boating Law Administrators would also make a similar survey, covering only waters operated solely by their states, through their boating law administrators. The sum of the two studies would then reflect an accurate picture of the search and rescue capability on inland waters.

The study was proposed by the Coast Guard in 1973, to be undertaken for the 1974 fiscal year, with minimal funds available for use by the National Water Safety Congress. NWSC proposed to enlarge the area of coverage to encompass the Bureau of Reclamation, Tennessee Valley Authority, national parks and private power companies operating lakes, with information available from respondent members, and a modest increase in the grant funds. This was agreed upon, and work began in July, 1974.

Method:

Immediate contact was made by telephone and in person by the study project team, Isabel and David Carr, to certain selected representatives of the Corps of Engineers Division and District Safety Officers, Tennessee Valley Authority and Bureau of Reclamation officials. Subsequent communications with these individuals confirmed the premises previously stated. They generally felt that few Headquarter Directives existed for public safety search and rescue procedures, and at those headquarter offices which were contacted, only a minimal knowledge existed of any procedures being initiated at lower level lake management.

Using some of the available procedures, plus a general knowledge of basic search and rescue techniques, a comprehensive four-part questionnaire containing fifty questions concerning search and rescue needs and functions was formulated by the team for approval by the Coast Guard.

A meeting at Washington, D.C. in August, 1974, with Captain David Metz of the Office of Boating Safety and Lt. George Bond, Jr., the project coordinator, and V. Morris Rosenbloom and Keith Wilson representing the National Association of State Boating Law Administrators, determined that with certain minor modifications this format would be used by the NWSC for "grassroots" coverage, and would be followed loosely by NASBLA, in an effort to get data that could be melded together.

The questionnaire was then modified by arranging it into four sections

with forty-one questions, and the addition of a cover letter and glossary of definitions. It was believed that this questionnaire, with a follow up letter or phone call where advisable, would be sufficient for the purpose of the study.

More than 200 questionnaire packets were sent in three mailings over the next several months to Corps of Engineers Reservoir Managers and dam operators, Bureau of Reclamation Safety Officers, Tennessee Valley Authority reservoir and dam managers, utilities, the National Park Service, certain River Authorities, and Irrigation Districts. Where the exact jurisdiction was not clearly defined, a cover letter was attached asking the recipient who might be acting under sole state authority and therefore participating in the NASBLA study, to make a notation stating as much on the letter and to return it to NWSC.

Most of the letters were mailed in November, 1974, to former study participants. As members of NWSC from states other than the original sixteen began to send in lists of project managers in their Districts, Tennessee Valley Authority members promulgated the questionnaire on their own, and mailing lists accumulated from other Federal agency sources, more questionnaires were mailed.

Many phone and letter contacts were made during the course of this phase of the study.

Respondents included 107 Corps of Engineers Lake or River System managers, safety officers and rangers (including five Indiana lakes "leased to the State"); 31 TVA lake managers or safety officers, eight Bureau of Reclamation project managers or safety officers; and 30 other resource managers including the National Park Service, U. S. Forest Service, Irrigation Districts, River Authorities, private and public power companies, and individuals responsible for local city or county lakes originally built by the Corps or Bureau of Reclamation.

Results:

For the most part, resource managers, safety officers and rangers responded fully and with candor to all parts of the questionnaire that were applicable to their waters. Since few are actually involved in well organized and func-

tioning marine search and rescue plans, none of the specific questions were answered by every respondent.

Except for a few cases, we would have to assume that the total local situation as regards marine search and rescue capability is not accurately reflected in the completed study questionnaires. Where limited use of rescue teams has been made, or where participation in such activities has been limited or nil by the respondents or their staffs, some have obviously made no attempt to search out accurate or complete answers. Even in some simple instances where information such as a telephone number for the local sheriff would have been easily obtained, none might be given, where in other instances entire directories for several surrounding counties was included. This was particularly true in trying to obtain accurate information on available equipment.

In using the data supplied, therefore, considerable comparison judgment was used in applying much of it to analysis. Previous data gathered from the same source, statistics available from a divisional headquarters for the many projects, maps and population/use statistics were all used in evaluating some of the reports.

Therefore, we feel that as seen from the viewpoint of the individual respondent, the survey is an excellent document. However, we cannot represent it to be a totally true assessment of the complete search and rescue capability in any state where the water resource is situated. Our respondents, while often including state water safety or administration officials within their search and rescue strategy, are primarily concerned with the actual source of personnel and equipment available to them on a quick alert basis. The SAR activity is obviously a very local endeavor.

ANALYSIS

PART I - SAR PROGRAM RESPONSIBILITY

Determination of where basic local responsibility lay for search and rescue activities (as well as ultimate district, divisional, area or regional), other than with the Coast Guard, was the first step. The various headquarter name designations are different due to the several bureaus and agencies contacted having different organizational structures and titling.

A determination of who initiated any Standard Operating Procedure (SOP)* or Plan, organized or informal, for search and rescue missions is included in Chart I below.

CHART I

- Q 1 - Within the District, Division, Area, Region, or other managerial chain of command of your agency, is there a department that deals with the responsibilities of marine related search and rescue activities?
- Q 2 - If there is no designated department that has the responsibility for functions of preparedness or executing marine search and rescue operations, is there an individual who is assigned this responsibility?
- Q 3 - Have you been supplied as part of the standard operational procedures of your facility, a procedure for marine related search and rescue?
 - a. from Hdq?
 - b. you
 - c. your staff
 - d. another agency
- Q 4 - At your project or facility, has some individual been assigned specifically to the responsibilities of marine search and rescue?
- Q 5 - Has a plan been initiated for the formation of local agencies to create a marine search and rescue plan?

SAR design- nated resp. at Hdq.	SAR design- nated resp. at Resource	SOP* from Hdq.	SOP* originated at Resource/Project Assigned/Own Init.	From Other Agen.	Indiv. assign at Re- source	SAR Plan
COE	10	25	18	10	7	6
TVA	9	1				1
B/R	8	1	1			6
OTHER	12	4		1	3	4
						1

It is obvious that the basic premise regarding headquarter responsibility for initiation SAR procedures was correct, with only 18 of the Corps managers being furnished standard operating procedures from headquarters.

The most common SOP attachment mailed in by respondents was a short procedure on body recovery initiated by the Little Rock District, COE. (This does not include the comprehensive Emergency Service Procedures promulgated by several Civil Defense type organizations, and the Alabama Rescue Squads.)

The more comprehensive plans, which included complete phone and address directory and an organizational chart, were those initiated at project level in cooperation with other local groups.

The assignment of one or more individuals at the resource to take responsibility in SAR activity was not necessarily consistent with the existence of a formal plan or team. Often "whatever Ranger is available" was the answer given for question 5. Since there were assignments at only 46 projects, and 61 managers stated that some type of SAR plan was already in existence or being formulated, there is a certain looseness here that could be the cause of major delays in activating a SAR attempt to meet an emergency. Normally the project manager or assistant manager is listed as the responsible party.

Absence of any SAR activity or SOP is explained by about 20% of the managers with a statement such as, "All water safety under control of the State." These same respondents usually indicated that they had vessels and at least minimum required equipment available for use. All Corps impoundments in Indiana, for instance, are leased to the State. However, for the purposes of ascertaining to what extent the resource management is capable of participation, all these respondents' data is included in the study where it pertains.

Another approximate 5% gave an explanation of the small size or exceptional configuration of their lake, which rendered any search activity useless. "They either make it to shore or go down at once," was a typical statement. One respondent described a narrow body of water with vertical rock cliffs, where the boaters either made it through or drowned, and search was only feasible by traveling the entire length of the lake.

The expected response that search was not necessary on inland waters because

"people are never out of sight of shore," was not encountered. The possibility of rescue rather than merely body recovery was mentioned by several to be small at their lakes; however, these respondents all acknowledged that search for body recovery had either happened there or was a possibility they should be prepared for.

SAR TEAMS - Philosophy and Make Up

The composition of formal or informal search and rescue teams was next examined, and found to be varied and complex to an extent that does not lend itself to chart analysis. Even when the respondent safety representative for a recreational water indicated that he or others on his staff were not members of a definite team, most had some knowledge of a local rescue squad or team, or they were able to list the full information on the sheriff or sheriffs of counties surrounding the lake. Most also listed the coronor.

All but four respondents listed at least one agency or organization that worked as a team on any search and rescue activity, which was far more than the 62 who responded that a formal local plan was being or had been implemented. In many instances, where a formal area organization did exist, a number of groups were identified as loosely operating under the primary jurisdiction of the sheriff of the county adjoining the immediate area of search. In the case of several counties being involved, coordination between them at the sheriff level seemed at glance to be excellent. In other cases, the action group was usually termed "Rescue Squad," and composition ranged from purely volunteer groups representing a concerned public, along with the volunteer firemen and police, to highly skilled teams of divers, safety experts and pilots.

Use of outside professional underwater recovery teams was rare, due to the expense, distance, or water which was too murkey in most seasons. A number of respondents indicated that such teams were called on an as-need basis only. Grappling was considered the better way of body recovery, and evidence weighs

heavily against the so-called rescue squads engaging in actual rescue situations. At the point they are contacted, it is more often too late, and the activity does become a body search, at least as far as a water incident is concerned. Most plans and team abilities are slanted toward body recovery.

An example of this is in the Alabama Association of Rescue Squads, Inc., operating under a Constitution and By Laws, with Standard Operating Procedures and a set of minimum equipment standards and recommended list of ambulance equipment. Notwithstanding the commendable and general mission of this group to educate themselves and the public toward bringing an orderly development of coordinated emergency services to the community and to reduce the alert and response times of the rescue squads, the emphasis in their procedures for marine search and rescue is toward body recovery.

Section 1:(1)(a) of their procedure explains the action to be taken "in case of drownings or other situations that may be expected to take an extended amount of time..."

Several examples of plans that emphasize the word "rescue" were sent in by respondents. One was from Rend Lake, Benton, Illinois, a Corps of Engineers impoundment in the St. Louis District. A reduced copy of this SAR procedure flow chart is included herein. The chart was produced on 10" x 13" card stock, suitable for posting. This is one of the relatively few lakes reporting a wind warning system, and one of only eight with computerized light system. Carlyle Lake, also in the St. Louis District, has had a light system for its second season and their experience may have helped influence Rend Lake's decision to tie the lights into a siren sound system. The plans look good, and we will follow their experience with interest.

Probably the most thorough approach to a preventive program, as well as a positive approach to the rescue operation, is that designed by the City of Oklahoma Water Department for Lakes Overholser, Hefner and Stanley Draper, comprising only 7,000 acres of water. Their wind or storm warning carries an

SEARCH AND RESCUE PROCEDURE

REND LAKE

(FLOW CHART)

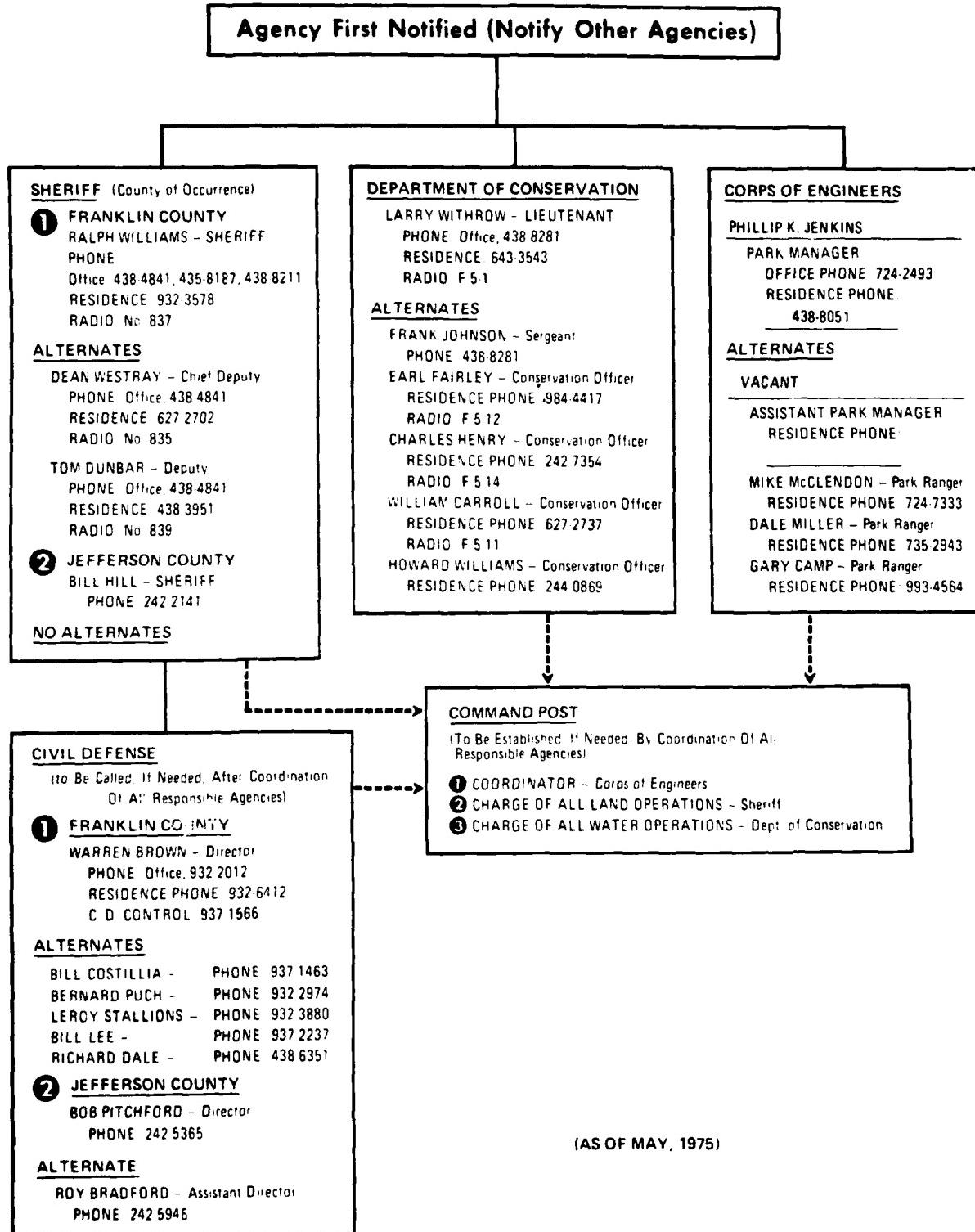


EXHIBIT A

official sanction for closing the lake to the public. Procedure for evacuating the lake is positive and immediate and, to ensure capability of the city's boats and efficient evacuation or rescue, a daily performance check on craft is required. Standards for maintenance and repair are included in these procedures.

In their procedural outline the first item involving contact with the public is directed toward assisting boats "disabled in the water." The second category is "Water Rescue Operations - persons in the water and possibly alive." Only after these priorities are set is the procedure taken up for "persons in water and presumed dead."

Few other formal procedures were presented which viewed the search of the SAR action as other than body recovery. Those which did emphasized as well a pre-search, or preventive search (as in the normal patrols), but designed more with a search-alert attitude. One of these, for the Cuneanti National Recreational Area, National Park Service, is aptly titled, "Protective Division."

Of those who had any kind of systematic SAR activity, only thirteen maintained a written procedure, a chain of command or flow chart, posted at each team member location. The simple matter of bringing this presumed oversight to their attention through the questionnaire may have increased awareness of the need for better communication or a tighter organization.

A number of the Corps respondents described their procedures in a short narrative in the space provided on page eight of the questionnaire. A representative sample which includes most points made by these men is that from the Manager of J. Percy Priest Reservoir, William Redmon, who is also a member of the Board of Directors of the NWSC.

"Normally, when a drowning or accident is reported to the Resource Manager's office, a ranger is dispatched to the scene to investigate. If assistance for search and rescue is needed, he radios the Resource Manager's office who contacts one of the local police agencies and rescue units, depending on which

county the accident occurs in. In the meantime, the Resource Manager's staff is contacting and questioning local witnesses and setting buoy markers to assist rescue squads at the location of the accident. Upon arrival by local rescue squads, the rescue operation is turned over to the squad commander. (Ed. note: Most commonly, the sheriff is named as commander.) The Corps remains available to assist the squads and local police by furnishing any additional maps or technical data about the project they might need in their rescue operation. Usually upon arrival the rescue squad commander becomes the overall coordinator of the search and rescue operation. Usually the Corps is not involved in the actual search and rescue unless equipment or supplies are needed which are not available from other sources."

By taking each Corps respondent's total answers to this part of the survey, it would appear that the above statements would apply in a majority of cases. A much smaller number of Corps managers indicate that their staffs are actively engaged in the operations, as team members. One interesting instance where the Reservoir Superintendent would normally be physically involved in search and rescue is at Conchas Lake, New Mexico, where the superintendent is also Flotilla Commander of the local Auxiliary Flotilla 23.

In the various agencies representing the "Other" group of respondents, much of the actual SAR function is performed by the staff of the managing agency, under prescribed agency-wide regulations.

A DIRECTORY of team members or local organizations who would be able to work in a SAR activity is included at the end of this Study Analysis, by state and by water resource, alphabetically.

THE ROLE OF CONCESSIONAIRES IN SEARCH AND RESCUE

- Q 10 - If at your project or facility there are concessionaires, are they fully aware of the procedures to follow if there is an incident requiring search?
- Q 11 - Are the concessionaires an official part of the search and rescue plan?
- Q 12 - Do concessionaires have a vessel in standby condition at all times? For the team's use, if they are not part of the team? What equipment does it carry?

The small number of concessionaires who are member of the SAR organization seems to stem from the problem of interruption of business that is inherent in their orderly functions for the public's commercial service, and the cost of furnishing boats or manpower. Where there are plenty of other personnel and equipment available, it is usually felt that they are not needed. However, where marinas exist, they are normally kept knowledgeable of procedures. Only 36 respondents state that the marinas have boats for use by the team, with most of the concessionaires joining in the SAR efforts when their time permits. In a number of instances, the use of a boat or participation in a radio or telephone network is indicated.

If giving a specific reason for non-participation, it was often stated that the concessionaire was "not trained in basic life saving techniques," or "boats too small," and "limited manpower."

The extent of participation by concessionaires would seem also to be somewhat dependent upon the attitude of the jurisdictional body in areas where public marinas did exist. For instance, in only two states, Arkansas and California, was there extensive participation by concessionaires. Most Corps lakes in the Little Rock District indicated they have full access to concessionaires' boats and equipment for SAR, whether the concessionaire is a member of an organized team or not. Of those concessionaires, most have standard search equipment with one, Greers Ferry Marina, furnishing a resuscitator and pump.

Most reporting resource managers in California belonged in the "Other" category, with a variety of responsible agencies, local, state and federal. Where giving a reason for non-participation by concessionaires, it was usually that they were "not legally responsible," or "it is not in their contract."

CHART II

The Role of Concessionaires as Search and Rescue Team Members

<u>Primary Agency at Lake</u>	<u>Conc. aware of SAR Procedures</u>	<u>Conc. are part of SAR team</u>	<u>Conc. have standby vessel</u>	<u>For team's use</u>	<u>Reason why not part of team</u>
COE	47	10	29	24	27
TVA	3	2			
B/R	4	1*	2	2	2
OTHER	13	1	4	4	1

*Concessionaire was the respondent.

CHART IIa

Concessionaires Equipped Vessels Available for Search and Rescue Team

<u>Primary Agency at Lake</u>	<u>Lakes where Conc. supply boats</u>	<u>On?y PFD's</u>	<u>Fire Ext.</u>	<u>First Aid</u>	<u>Drags/Hooks</u>	<u>Resus.</u>	<u>Pump</u>
COE	26	11	4	6	3	1	1
TVA	2			2	2		
B/R	1	1					
OTHER	8	3		2			

TOTAL EQUIPMENT AVAILABLE FOR USE IN SEARCH AND RESCUE ACTIVITY

Equipment available to the resource manager through his own budget and personnel varied from none at all or a simple boat with oars and extra PFD's to a sophisticated set up including several boats equipped with depth finders, radios and complete equipment for search and rescue under any condition.

Some managers did not list their equipment, replying instead with "standard CG required safety items," or like phrase. Since there are no specific requirements by the Coast Guard for inland search and rescue, we must assume this means that the vessels meet the legal requirements for their length and type. We placed under this heading any who had listed only PFD's, first aid

kit, extra lines and fire extinguishers, as well as those who answered the question with the term "standard items."

A few answered "Complete SAR Kit," or "all necessary equipment." Considering the basics required for a day or night search with intent to rescue if possible, we tallied these as including standard equipment, markers or flares, baskets, blankets or stretchers, body recovery equipment and spot lights.

For those who did not make a complete listing, or who answered as above, we grouped all miscellaneous named items, such as extra gas, throwable cusions, heaving lines, under the "Standard Equipment" heading. Besides the listed desirable extra equipment, seven respondents mentioned portable power generators and several listed oxygen and spare motors. A few specified "fire fighting equipment." Those same respondents had other more sophisticated items, so we assumed that the fire equipment included protective wear and other special equipment.

If all items except PFD's and lights were named as singular, it was assumed only one boat was so equipped. If a number of boats were listed, or all items listed were plural, it was assumed more than one boat was available.

Several used the term "available for use" as applied to certain items such as scuba gear, which was interpreted as not being part of their own inventory. At the Roosevelt Dam, Bureau of Reclamation, the answer "no" was given to question 13, but a statement was also made that there were "numerous vessels and a variety of equipment that could be utilized." This was not counted toward available search and rescue equipment at the primary resource level, since the "availability" may depend upon other agencies.

CHART III

SAR Equipment Available for Use from the Primary Lake (Resource) Management

<u>Primary Agency at Lake</u>	<u>No. of Resources with boat</u>	<u>More than one boat</u>	<u>Std. Equip Only</u>	<u>Markers or Flares</u>	<u>Pump</u>	<u>Rescue</u>	<u>Baskets/Stretchers</u>	<u>Body Recov</u>	<u>Meg or Loud Hailer</u>	<u>Spot Lights</u>	<u>Sonar</u>	<u>Sabot and/or Gear & Radio</u>
COE	93	7	85	19	6	32	42	50	56	7	32	5
TVA	5		5			1	5	4	2			3
B/R	5	1	1			1	1			1	1	
OTHER	21	5	28	6	2	13	13	15	11	14	2	

Thus we see that 79% of the respondent Corps lakes had at least one boat with some basic standard equipment. About 50% had body recovery gear and spotlights, while less than 50% maintained stretchers, blankets or wire baskets. About 30% had a resuscitator. The number of radios shown as being available is believed to be faulty, as all Corps lake management offices we have visited have at least two-way walkie talkie type radios available for normal and emergency use, and many patrol boats are radio equipped for base communication. By including all radio communications equipment, it would seem that the number of radio equipped boats could be improved somewhat.

TVA maintenance of boats and equipment is light, as most areas where their lakes are located fall under the protection of the Coast Guard or their states' water safety patrols. Of these states, Alabama in particular has long been active in this regard.

The Bureau of Reclamation lakes are hard to define as such, as most of their reporting came from the municipality, irrigation district, or other management agency who was operating a Bureau-built lake. However, the Bureau of Reclamation safety personnel did promulgate most of the questionnaires to these people, and have been aware of the responses.

We see that 100% of the "Other" lakes have at least the standard equipment, with 50% carrying major search and rescue equipment. Fifty per cent have some sort of depth finders. Those who are best equipped are the National Park Service, the municipalities with their police, fire and other services at their disposal, and the areas in or near mountain ranges, where access to lost persons would be difficult or hazardous. Helicopters and mountain climbing equipment is part of the normal equipment in these areas, and more men and equipment per land acre involved seems to be the rule.

Some Corps managers wrote that they would like to have more rescue equipment so they could initiate rescue, as their Rangers were usually first to be

notified of an incident. This was most often at Corps lakes where quick contact with a number of well equipped agencies was not possible due to the distance from larger towns and cities.

At a number of Corps lakes, no effort is apparent to maintain even basic SAR equipment at the resource headquarters, since the lakes are leased to the state, or some other agency is in a predominant position regarding the use of the water by the public for recreation.

SAR EQUIPMENT AVAILABLE THROUGH COOPERATING AGENCIES AND ORGANIZATIONS

The number of resource managers responding that one or more agencies near the lake had the specific equipment spelled out in the question was 112, comprised of 75 Corps of Engineers, 18, Tennessee Valley Authority, three Bureau of Reclamation and 16 at other lakes.

This question was obviously poorly stated, inasmuch as a number of correspondents replied giving their own agency's equipment as well, or the marina/concessionaire who had already been listed in question 12. Some, after identifying a SAR team including sheriffs and rescue squads, failed to list any other agencies with equipment. Probably both the words "agency" and "nearby" were the cause of the misunderstanding. Respondents could readily identify state wildlife departments as agencies, whereas the word did not fit into their understanding of a volunteer rescue squad, for instance. Also, sheriff's departments, fire departments, etc., who were not actually located at water's edge were often not listed here, and a spot check of maps indicates that a drive of several miles might be necessary to reach the lake, even from a patrol car on the road.

However, from those answers available, and a careful attempt to include basic equipment where known, we get a pretty good picture of the numbers and kinds of assistance available. This is broken out in Chart IV by category of primary jurisdiction and the specific equipment. In Chart IVa, we show how this total is reflected by state.

CHART IV

**ADDITIONAL SAR EQUIPMENT AVAILABLE FROM OTHER AGENCIES AND ORGANIZATIONS
Water Resource Areas with at Least One Other Agency or Group Nearby With
SAR Equipment and Personnel;
by primary agency and equipment items.**

Primary Agency at Lake	Total who have help fr. others	No. of Other Agencies	Number of agencies who have captioned equipment:									
			Boat and Motor	Search Aid	PPD's	Light	First Aid	Heavy Lines	Bask.	Hooks	Ropes.	Blankets
COE	74	163	131	108	133	106	122	69	126	97	118	5
TVA	18	292	22	18	20	21	20	22	22	20	22	8
18 B/R	3	8	8	8	8	8	2	2	8	8	2	2
OTHER	16	33	26	21	28	30	26	21	23	25	24	3

CHART IVa

Water Resource Areas with at Least One Other Agency or Group Nearby
with SAR equipment and Personnel; by State.

<u>State</u>	<u>Total Respondents</u>	<u>Number that have other equipped agencies near</u>
Alabama	8	3
Arizona	1	0
Arkansas	11	5
California	17	8
Colorado	2	2
Georgia	4	3
Illinois	4	4
Indiana	5	4
Iowa	3	2
Kansas	8	7
Kentucky	6	5
Minnesota	5	2
Mississippi	4	3
Missouri	4	3
Montana	1	0
North Carolina	3	2
North Dakota	1	0
New Mexico	3	3
Nevada	2	0
Oregon	1	0
Ohio	11	5
Oklahoma	11	8
South Carolina	1	1
South Dakota	2	2
Tennessee	25	16
Texas	27	18
Virginia	3	3
Washington	3	2
West Virginia	2	2

ADDITIONAL UNDERWATER SEARCH CAPABILITY

Q 16 - Do you know of any person or agency nearby that could provide underwater recovery, who is not part of the search and rescue team?
If yes, is there a specific reason you care to state?

This was asked primarily to see what the attitude was toward professional diving teams as well as scuba clubs, for potential service when faced with a need for assistance in body recovery. Most of those who answered yes to this question qualified their answer by saying the individual or group would be "willing to assist if called." In several cases the individuals were identified as police officers of a nearby community who dived as a hobby in off duty hours.

Only one respondent indicated that the use of the resource would be difficult because of some sort of community/political involvement.

That the outside groups were considered capable for use if needed is an encouraging attitude, reflecting the attempts toward upgrading diving as a sport, particularly over the last decade, through training, certification and improvement of equipment. Certainly the underwater procedures and rules which were returned with some of the questionnaires contained important safeguards to prohibit untrained or poorly equipped persons from participating in SAR activity.

HOSPITALS

Q 17 - List the requested data on the nearest hospital, and its distance from your facility. (Name, Phone, Address) Is the hospital equipped to care for serious injuries, such as burns from explosions?

Nearness of hospital and the capacity for caring for explosion and burn victims did not seem to affect the overall preparedness for on-water accident, search and rescue. Normally those best equipped water resources were very near to adequate hospitals. Hospital information is included in the DIRECTORY.

PART II - COMMUNICATIONS

The entire scope of public communication of safety information, from the bulletin board to radio network, is examined by the twelve basic questions of Part II. Question 13 aims to determine if any actual practice in use of the total search capability, including the communications system, has been undertaken. Answers to the questions were expected to be diverse and to articulate some areas of good potential for quick alert as well as major weaknesses.

When even primary and inexpensive means such as posted signs, are not used one looks for an answer. Quite often it will come out as "What good would it do? People will not read." On the surface certainly, this is a point, when we review the drowning figures. A large percentage of all swimming and wading fatalities happen at restricted or non-swimming or wading areas that have been very clearly posted. Nonetheless, failure to use every means at hand in a continuing effort to promote the public's safety would have to be weighed against the public use and exposure inherent in that particular water area as well as the overall safety record of the area. No such effort was intended or possible through this Study, but the exercise of answering the questions in Part II will no doubt have thought provoking consequence in the minds of some of the respondents.

Obviously, a number of alternatives to giving weather warnings are available. The inexpensive loud hailer, for instance, requires manpower to go by truck or boat around the lake's periphery in the sometimes relatively short time available to warn of approaching severe weather. The more expensive electronic light warning system alerts all those on the water within a couple of miles viewing distance. A cove fisherman would not see them but he could hear a wind activated siren. Also the lights and sirens are not activated by the routine high prevailing winds which come up commonly in many areas in the spring and fall, with a suddenness and velocity that can easily cause accidents. The size and configuration of the body of water, as well as the budget, would

have to be considered before making additional expenditures for weather warning systems.

As a weather alert public contact, it would seem highly desirable, and possible, that personnel normally called for SAR activity could be utilized in the precautionary measure of helping with weather warnings. No volunteer SAR member will fail to respond to an emergency call involving a known accident, but the tedium of day-to-day accident prevention could soon pall. Only good management and "personnel administration" can give the volunteer SAR team an incentive to go about such a public relations-prevention job with any alacrity. The Coast Guard Courtesy Motorboat Examination program is an excellent example of how such a program could work.

A total plan of preventive action, particularly in the areas of communication, would seem to be the best base for a successful total SAR effort.

The communications capability near each body of water, as reflected in all the answers of Part II of the Study, are shown in Chart V, by State. This was done to assist the Coast Guard to evaluate this information along with the state information obtained from the NASBLA Study.

Q 1 - Are there signs, notices or billboards at your facility to notify visitors about what to do in case of an emergency? Any other means of notification?

Q 2 - Do you have a wind warning flag system that is maintained at your facility? Other type of system? If so, what?

Q 3 - Do you have a field phone system where you can be contacted from a remote location?

Q 4 - Do you have a public address system on a vehicle? If more than one, how many?

For Question 4, the number of respondent managers is given along with the total number shown to be equipped with public address systems. If no specific number was given by the respondent, the average number of all others in that category in that state was used to obtain a total.

Q 5 - Do you have a vessel equipped with a loud hailer? If more than one vessel so equipped, how many?

For this question, the number of respondents who listed agencies in a search and rescue team who had radio-telephone equipment is shown, as well as the total number of agencies involved. The number of radios is not included, as the respondent generally would not know the exact number of radios operated by the other agencies.

Q 6 - Do you or any of the other agencies in the search and rescue team have the following radio-telephone equipment? Name of AGENCY: VHF-FM; HF-AM double or single S/B; AM; CB.

Q 7 - Are you in an area where VHF radices are in common usage?

Q 8 - Do you have mobile radio equipment on any of your vehicles? If so, how many?

Question 8 requests the number of mobile radio equipped vehicles, but where a respondent answered yes without giving a total number, the average number of all others in that category in that state was used to obtain a total.

Q 9 - Is the mobile equipment monitored at all times from your base of operations?

Q 10 - Is your radio equipment on the same frequency as the other participants in the search and rescue team? If no, is a coordinator established?

Q 11 - List the agencies with whom you have constant radio communications.

Q 12 - What is the frequency that is monitored by your radio?

Q 13 - Has there been a search and rescue team exercise to prepare for an emergency? If yes, what was the nature of the exercise? (i.e.: Standard Life Saving procedures, boat maneuvers, underwater search, radio-telephone, etc.)

For Questions 11 and 12, concerning the agencies with whom constant radio communications were established, as well as the frequency monitored by the

primary agency, were not analyzed. So few respondents listed any other agencies besides their own assigned channel, that no great value was seen in listing this information in the DIRECTORY, as only those involved with a search and rescue team effort would be using this information.

SEE CHART V on pages 25 and 26.

R E C A P

At various points in the answers of Sections I and II of the Study Questionnaire, these respondents have brought out that they are presently cooperating, or attempting to build a cooperating marine search and rescue plan, with other local agencies who are equipped and willing to do rescue and recovery work. Most seem to feel that very little more, if any, is needed in the way of organization and equipment to perform adequately for their circumstances.

What does seem to be needed is updated plans which would make the alert response faster, which goes back to the problem of communications, both prior to emergency and during emergency.

A good number of respondents mentioned a "Water Safety Council" or "Lake Safety Council" as being formed or in the discussion stage, which they felt would bring about better coordination of effort and use of the available equipment and personnel resources. "We have plenty of good volunteers available," was a common statement.

CHART 5
COMMUNICATIONS CAPABILITY

**COMMUNICATION CAPABILITY THROUGH PRIMARY LAKE MANAGEMENT
AND TOTAL COMMUNITY SAR TEAM PARTICIPANTS; by State.**

<u>STATE</u>	<u>Sigings or Billboards Number Reespnd.</u>	<u>Wind warning Flag Wind warning Lts/Siren</u>	<u>Phones filed PA system Number L. Hatch on Vessel on Vehicle Number</u>	<u>Have radio tel. equip.</u>	<u>(# of agencies) HF-AM double/ single e/b AM CB</u>	<u>IS VHF-FM common?</u>	<u>Mobiile radio/ eq. vehicles Number</u>	<u>Monitored fr. Base as freq.</u>	<u>Coordinator established as team</u>	<u>Coordinator as team</u>
Ark.	11	8	5	3	3	10	42	6	6	18
Ariz.	1					1	1		1	2
Ala.	8	3	1	1*	2	7	14	1	4	7
Ca.	17	10	1	2	8	11	27	9	8	31
Col.	2				1	1		1	2	1
Ga.	4	3			1	3	13	3	2	1
Ill.	4	4	4	3	1	4	15	3	2	1
Ind.*	5				3		1	1	2	3
Iowa	3	1	1	1	3	8	1	2	2	19
Ks.	8	3	4	2	1	7	20	3	7	18
Ky.	6	3	1	1*	1	4		2	6	7
Mn.	5	2			1				3	4
Mo.	4	2			1	3	11	1	3	5
Ms.	4	3			2	3	14	3	2	5
Mt.	1	1							1	1
N.M.	3								3	12
Nev.	2					1	2	4	2	7

N.C.	3		2	6	1	2	9	1	4	3	1	3	14	1	1
N.D.	1	1					1	6	1		1	1	2	1	
Ohio	10	1	1	3	3	2	5	1	5	9	1	6	7	7	4
Okla.	12	4	1	2	3	8	29	4	5	16	6	6	2	5	8
Ore.	1	1											1	7	1
S.C.	1			1		1		1	3			2	1	1	23
S.D.	2	1			1	2	7	1	2	6	1	2	1	2	7
Ten.	25	5	3		8	19	42	4	19	70	6	11	16	25	108
Tex.	27	15	4		4	19	53	15	24	54	10	4	3	20	33
Va.	3	2			1	1	2	1				3	3	11	1
Wa.	3	(areas, not lakes)			2	5	1	1	3	3	1	3	3	91	3
26. W.Va	2	1							2	7	1	1	1	2	6

* Boat with siren used as wind warning.

NOTES TO CHART V; Pertaining to Question 13, Part II.

1. Number of responding resources with team drills in life saving procedures only
2. Number of teams with life saving, boat handling and underwater drills
3. Total teams with life saving, boat handling, underwater search, radio-telephone
4. Total teams with practice in all above, plus air and fire drills
5. One respondent agency had drills with their own staff only.
6. Two respondents stated that total team discussion and blackboard drills had been done.
(Individual rescue squads, which were not the respondents reporting, customarily have their own routine drills, as well as sheriff and fire departments.)

31

1

14

5

Two respondents stated that total team discussion and blackboard drills had been done.

(Individual rescue squads, which were not the respondents reporting, customarily have their own routine drills, as well as sheriff and fire departments.)

PART III - EQUIPMENT AND MANPOWER NEEDS TO IMPLEMENT OR IMPROVE SAR METHODS

This part of the study was designed to bring out what, if any, assistance could be provided by the Coast Guard in the form of search and rescue equipment, or by assisting with SAR workshops to be given to team participants. A possibility for additional search and rescue personnel in the form of local or nearby Coast Guard Auxiliary units, who could be alerted to their area needs, would be considered if desired by the water resource managers.

Assumptions were made that while additional manpower and Coast Guard equipment could not be made available directly for the inland areas, there might be ways of guiding local agencies toward specific available funding that they might not know about. The possibility that the Coast Guard might assist by furnishing certain specialized SAR equipment in the future was also discussed prior to the undertaking of the study.

Also, results of the 1973 survey by the National Water Safety Congress of safety programs near inland waters of sixteen central states indicated a fairly low percentage of managers who had any understanding or communication with the Coast Guard Auxiliary programs. By pinpointing needs for SAR assistance, it was felt that the Auxiliary might be able to undertake growth in those areas or, if they were already organized and just not known by the resource managers, they could make the necessary contacts to offer assistance.

Chart No. 6 and No. 6a enumerate the additional equipment needs for those who are not now providing search and rescue assistance, as well as those who are already involved in SAR activities. Chart No. 7 reflects the need and willingness of the resource managers to utilize the Coast Guard Auxiliary programs and to take part in SAR workshops if given within a distance of 100 miles.

EQUIPMENT NEEDED BY RESOURCE MANAGING AGENCY TO IMPLEMENT SEARCH AND RESCUE PROGRAM

CHART 6

Q 1 - Assuming that you are not now providing marine search and rescue assistance at your facility, or working with a local search and rescue plan, would you be in a position to furnish such assistance with the proper equipment?

Q 2 - List the equipment that you do not have which would properly equip your staff to perform marine search and rescue at your project:

<u>Agency</u>	<u>Yes</u>	<u>14/16'</u>	<u>16/23'</u>	<u>OB</u>	<u>I/O</u>	<u>Pont.</u>	<u>Porta.</u>	<u>Loud</u>	<u>Hailers</u>	<u>Basket</u>	<u>Lights</u>	<u>Resus.</u>	<u>Other**</u>
COE	45	2	8	10		2	21	42		33	37	3	2
TVA	11	6	4				13	10	9	11			2
B/R	3						1	1	1	1	3		
OTHER	12		4	3*	1		12	8	15	10			1

* Jon boat

** Portable generator, boat trailer and grappling hooks were named.

CHART 6a
EQUIPMENT NEEDED BY RESOURCE MANAGING AGENCY TO IMPROVE SEARCH AND RESCUE PROGRAM

Q 3 - If you are already performing search and rescue operations at your facility, list any equipment which you feel would help you perform more effectively in such operations.

<u>Agency</u>	Total <u>Resp.</u>	Boat/s <u>14-16' 16-23'</u>	OB <u>I/O</u>	Radios <u>Hailers</u>	Loud <u>Lights</u>	Portable <u>Pump</u>	Porta. <u>Gener.</u>	Air <u>Comp</u>	Depth <u>Finder</u>	Scuba <u>Gear</u>	<u>Other**</u>
COE	21	2	2	9	5	1	1	1	1	2	4
TVA	7	1		1	1	1	1	1			3
B/R	2			1							
Other	14	5	2	5	11	2	1	4	4	4	3

**Various misc. items: Grappling hooks, splints, baskets, foul weather gear and PFD's; better land transportation; airplane; navigational beacons, night viewing devices, underwater camera-TV and monitor; Training.

For those managers whose staffs were not now providing assistance in search and rescue teams, a boat was the primary need at Corps impoundments, with only two specifying less than 16 foot boats and the rest specifying 16 to 22 foot outboards. Two felt pontoons fit their needs best and only two of these respondents felt they needed more than one boat. Desired motors ranged from 10 horsepower to 160 horsepower. Among the "Other" agencies, the smallest boat mentioned was a jon boat with a 10 horsepower motor and the largest an inboard-outboard with 160 horsepower motor. The 16-18 foot fiberglass with an average 35 horsepower motor was the most common, although four TVA managers listed aluminum craft.

Forty-two Corps managers showed a need for portable loud hailers, which would probably serve a dual purpose for regular patrol enforcement work as well as SAR. Since only 113 of our total Study respondents had other groups or agencies in their teams who were equipped with loud hailers, and less than one third of the Corps managers who had vessels available carried loud hailers, it would appear that this low cost and long lasting equipment item could be given more attention by Corps headquarter safety management. A similar ratio on the listing of the loud hailer is seen in the other agencies.

High on the priority list also were radios, with inter-agency channels a needed addition. As an example of the undercurrent of thought on radios, we quote from the report from Benbrook Lake, a small Corps impoundment in Texas, which shows good capability for SAR with local police, county fire, Corps and Army Reserve units. However, "The major problem encountered in rescue/recovery operations on Benbrook Lake has been the lack of organization and communications between the many units and agencies involved. The problem is quite serious when there are at work units of four different agencies, each unit equipped with a receiver capable of communication with only his own agency."

Among those managers whose staffs regularly furnish SAR personnel and equipment, 21 Corps, seven TVA, two Bureau of Reclamation and 14 Others responded

with a listing of one or more additional items of equipment that would improve their capability. Eight specifically listed "manpower." The lists ranged all the way from PFD's and grappling hooks to 23 foot inboard-outboards and sophisticated underwater photographing and monitoring equipment.

Two Corps and two Other respondents listed "larger and more stable boats," while one Corps manager specified a Boston Whaler with a 65 h.p. motor. Certainly these men are in a unique position to judge their needs, and stability of the boats would be essential for their own safety. Inboard-outboard 22-23 foot boats were listed by two California resource managers, and one TVA and one Bureau of Reclamation manager simply listed "additional boat."

Large cost items, therefore, do not seem to be a major factor, excepting that six of these respondents will need additional manpower as well as boats. Two managers felt that manpower was all they needed.

Better inter-agency communications is a strongly felt need by nine Corps managers, with three of the nine desiring VHF with inter-agency channels to be installed in their present boats. "More radios" was called out by six managers, while one listed "CB radios for communications with other local agencies."

Electronic loud hailers were listed by four Corps, one TVA and eleven Other managers, and one Corps manager listed mobile PA equipment for their vehicles.

Scuba gear and trained personnel to use it was listed by six managers, and some could use portable lights, resuscitators, pumps, and miscellaneous small items such as splints, baskets, grappling hooks and foul weather gear. Surprisingly, two TVA managers even listed PFD's. Portable power plants and air compressors were mentioned by six, and five could use depth finders. One would like a Star Tron night viewing device and underwater RV with monitor, and an underwater camera is listed by one Corps manager. Two of the larger water managers feel that navigational beacons would be helpful, and one would make use of an airplane. Large water size and geographical problems go hand in hand

with the requirements for more sophisticated equipment and larger craft.

One manager got down to basics and listed "training in life saving techniques."

ACCEPTANCE OF OUTSIDE TRAINING OR ASSISTANCE, THROUGH ATTENDANCE IN WORKSHOPS OR THE USE OF THE COAST GUARD AUXILIARY

Of the 176 total respondents, 126 indicated they would be willing to participate in a workshop on water rescue procedures if it were given at a location within 100 miles. A few of the respondents who did not questioned:

1. Who would pay for their attendance if they should go?
2. Would their headquarters approve of their going?

The rest who were not interested consisted of those respondents who had already expressed an opinion that they were not in any primary responsibility toward a search and rescue operation, or were already functioning extremely well and had plenty of training.

Only 38 replied that they had considered asking the U.S. Coast Guard Auxiliary to help in preventive water patrols or for additional help in marine search and rescue operations. Follow-up action brought out that in 12 cases the Auxiliary assists regularly with patrols and/or SAR at specific locations, and in 26 cases they assist upon request. Other follow-up indicates that at 13 locations the Auxiliary assists at certain functions only, or at particular times, such as National Safe Boating Week, Fourth of July, local water celebrations or regattas.

These relatively small numbers of respondents seem to reflect only those cases where the water resource management has been knowledgeable of the capability of the Auxiliary, and has already found a need. Many of those who answered "no" to this question stated that they have adequate patrols, usually afforded by their particular state. Ohio, Oklahoma and Texas were mentioned most often as having good state patrol capability. In several TVA responses it was noted that the Coast Guard or Coast Guard Reserve were relied upon.

Also a primary consideration in a "no" answer was the fact that there was no flotilla nearby or, in some cases, none at all in the area. Since many Auxiliary flotillas exist in towns or cities some distance from lakes, and are available mostly on weekends during the boating season, it is possible that more could be done to make their capability, especially for search and rescue, known to the water resource management. Obviously, many Auxiliarists do make assistance to boaters in distress without the knowledge of lake management, in the course of their pleasure boating and most often while not in uniform. Also, courtesy and twilight patrols that are so often a part of scheduled Auxiliary weekend operations may be ordered by the flotilla commander without a written request from the resource manager and the state.

Where Auxiliarists have made a favorable impression on a state's boating law administrator, there has been more emphasis on their participation in lake dedications, regattas, and other local community safe boating programs. Of the inland states, Kansas stands out as a good example of cooperative effort by the state boating law people, recreation specialists, the water resource managers, and the Corps headquarters in the Kansas City District.

Six respondents said they did not know the Auxiliary was SAR qualified, and of course, all units of the Auxiliary may not have people who are trained in patrols. Of the four who did not consider the Auxiliary qualified, only one also indicated previous bad experience, and in that case no corrective action was apparently taken.

Of the thirteen responding with some other reason for not using the Auxiliary, those giving a reason stated specifically that the Coast Guard, Coast Guard Reserve or state and volunteer patrols were already sufficient

CHART 7

**WILLINGNESS TO ACCEPT OUTSIDE TRAINING OR ASSISTANCE
THROUGH ATTENDANCE IN WORKSHOPS OR USE OF THE COAST GUARD AUXILIARY.**

Q 4 - Would you or a member of your staff be available to attend a workshop on water rescue procedures, if given at a location within 100 miles?

Q 5 - If you feel you could use more preventive water patrols, or additional help in marine search and rescue operations, have you considered asking the U.S. Coast Guard Auxiliary to help you? If yes, what was the response or follow-up action?

- i. They are assisting regularly at _____
- ii. They are assisting upon request with/at _____

If no, what is the specific reason?

- a. No fleet/area nearby _____
- b. Did not know they could be called for Patrol or SAR _____
- c. Do not consider them qualified _____
- d. Had past bad experience. If so, was any attempt made to correct it? _____ How long ago? _____
- e. Other _____

Primary Agency	Would att. Workshop	Have considered Auxiliary for SAR	Now assist regularly	Assist upon request	Other	If not considered or now assisting, reason why:				
						a	b	c	d	e
COE	75	20	10	15	7	40	4	4	6	6
TVA	24	7		6	3	7			2	
B/R	5	4		1	2	1	1	1		
Other	22	6	1	3	2	10			5	

PART IV - SUMMARY OF PRESENT SAR ACTIVITY

Q 1 - Have you or your staff been involved in a search and rescue activity in which an aircraft was reported down or missing on or near your facility? If yes, was it located on land ; on water .

Q 2 - Have you or your staff been involved in a marine search and rescue action at your facility in which aircraft were used to locate the persons in distress?

Q 3 - Are you familiar with the signals that aircraft can employ to direct a surface craft in the absence of radio communications?

Q 4 - How many times have you and your staff, or members of your local rescue team, been involved in an UNSUCCESSFUL SEARCH for persons thought to be lost in the water? (1971-1974)

Q 5 - How many times have you and your staff, or members of your local rescue team, been involved in the search and RESCUE of persons thought to be lost on the water? (1971-1974)

Part IV merely identifies the type of search and rescue activity that was most commonly encountered at the particular resource.

Questions concerning aircraft were included for three reasons: 1) To aid in further determining to what extent the resource personnel is active in emergency services at their location, inasmuch as downed aircraft would present an entirely different rescue and recovery procedure on water than on the surrounding land areas. 2) To determine what type areas benefit from air search; i.e., as to size, topography, distance from cities; 3) To bring attention to the possibility for use of aircraft (by such groups as the CAP and the Coast Guard Auxiliary) where aircraft is not owned by the agencies or governments responsible for the lake management.

Questions concerning unsuccessful search (failure to find individual or body believed to be lost in the water) and the rescue of persons believed to be lost on the water, was an attempt to learn if possible what category of water sports activity presented the most, or worst, problems of search.

Chart 8 shows the involvement of aircraft in search and rescue activity.

Chart 9 shows the successful search and rescue figures, and Chart 9a shows

the unsuccessful search figures by category of activity and primary resource management. However, a judgemental factor had to be applied here, and even so, the probability that these figures are entirely correct is slight. Enough of the respondents clearly misunderstood the "unsuccessful search" of Question 4 to mean failure to find because the person was not really missing at all, but home in bed, at another lake, etc., that some whose reasons for failure to find may appear realistic still are open to question. Misunderstanding of the word "rescue" in question 5 to mean "found at home in bed, at another lake, etc., rather than a search which culminated in finding a person in distress on or near the water at the facility, was prevalent enough to question these overall results, even when removing the obvious error possibilities.

The only thing the figures do well is offer a comparison of the frequency of search necessary by water sport activity, which could be helpful in understanding the type of additional equipment or organization needed.

CHART 8
INVOLVEMENT OF AIRCRAFT IN SEARCH AND RESCUE ACTIVITY
AT THE RESPONDENT WATER RESOURCES

<u>Primary Mgmt. Agency</u>	<u>SAR involv. downed Aircraft</u>	<u>Found on</u>		<u>SAR with Aircraft Assisting</u>	<u>Respondent familiar w/ Air-land signal</u>
		<u>land</u>	<u>water</u>		
COE	26	13	11	23	21
TVA	5	3	1	2	4
B/R	6	2	4	2	2
Other	11	5	5	6	7

NOTE: Figures do not indicate the number of times aircraft were used or the number of persons found, but the numbers of respondents whose areas had experienced search and rescue operations conducted by aircraft.

Question number 4 regarding unsuccessful search was asked to see if enough of a pattern evolved to enable us to recommend possible additional equipment or preparedness procedures. Almost all the respondents correctly interpreted the question to mean the failure to find or recover bodies of a victim or victims

who are believed to be lost in the water. Obvious cases where other victims in a boat were recovered or where at least one other person witnessed a victim going down, were recorded here. Three incidents where a possibility exists that a hoax was played or faulty information was received were clearly identified by the respondents and are not counted.

The most important information we learn from these responses are the reasons for failure to recover. The ratio of swimmer to boater or boat fisherman fatalities is inconsistent with other known data sources, since a smaller number of swimmers is shown as being non-recovered. However, this would be a matter of swimmer body recovery being generally simpler, since they were probably closer to shore and in relatively shallow water when they went down.

Only one aircraft was listed as being unrecovered, and one child who fell from a wing dam into a swift current.

Reasons for failure to recover, when given, are listed along with the number of times they apply:

- | | |
|--|----------|
| 1. Lack of specific information regarding exact location and insufficient equipment and personnel for a wide general deepwater search. | 20 times |
| 2. Water too deep | 17 " |
| 3. Too much brush and/or timber | 3 " |
| 4. Depth plus timber | 3 " |
| 5. Swift current | 2 " |
| 6. Known to be buried in shifting sand | 1 " |

CHART 9
 RECORDED UNSUCCESSFUL SEARCHES AT RESPONDENT WATER RESOURCES
 by Primary Lake Management Agency,
 Water Recreation Category, and Year.

<i>Agency</i>	<i>Year</i>	<i>Total</i>	<i>Boat</i>	<i>Swimmer</i>	<i>Hunter</i>	<i>Fisher*</i>	<i>Aircraft</i>	<i>Other**</i>
COE	1974	19	10	4		3		2
	1973	12	8	2	1	1		
	1972	14	6	4		4		
	1971	9	5	2	2			
B/R	1974	2		2				
	1973							
	1972	2		2				
	1971	1	1					
TVA	1974	(Generally do not keep any records - all State)						
	1973	2		1		1		
	1972							
	1971							
Other	1974	14	2	7	.	4		1
	1973	9	6		2	1		
	1972	15	6	6		3		
	1972	13	8	3		2		

*Fishermen category, even if boat was involved as transportation means.

** One diver; one child playing near water.

Respondents from water areas nearer the ocean, the Great Lakes and major navigational rivers generally understood the meaning and intent of this question

By italicizing the word "rescue" we attempted to move one step beyond a body recovery count, since those are figures we can obtain from other available statistics sources. However, some respondents requested clarification of the question, and a number inserted a note to indicate that they assumed this meant "rescue/recovery."

If the respondent filled in the column headed "where found?", it was easy to decide whether he was assuming rescue or body recovery. For instance, if he said, "in water" or "in 40' of water," we took this to be a body recovery, and it is not included in the charted figures.

A listing of where the individual or group was eventually found can give us a psychological or attitudinal reason many respondents listed cases of search with an eventual find (by someone) under Question 4 as an "unsuccessful search." When men have spent a number of dreary, wet or cold hours looking for fishermen who decided to go to another lake without telling their wives, or who are warm and safe in a local bar, the searchers may chalk the experience up to disgust rather than a "successful search" since a rescue from peril was never made. Of course, in several instances where a capsized boat was found and the occupants had made their own way to shore and safety, even if to a local bar or marina, a search had been made, people were safe, and waiting families were calmed in the process. For the purpose of this study, these were counted as successful searches.

While again not rescues in the context of rescue from certain peril, if victims were found on some shore but their boat was adrift, or on the lake with an engine breakdown, these were counted as rescues, especially since most appeared to be fishermen and cold weather could have been an imminent danger, as well as rough weather for boaters. Rough weather was specifically mentioned in some responses. At least 80 of the cases were fishermen or families in pleasure boats who were tied or anchored in a sheltering cove to wait out some severe

weather. These are all counted as rescues. Fifty-two cases were people who were eventually found at another lake or back at home, sometimes while the search was still in progress.

Obviously, due to the relative inexperience of most respondents in SAR work and the terminology interpretations, more explicit questions would have obtained a clearer picture. These figures do tell, however, who were the objects of search by the primary water recreation group. Naturally, few swimmers would be successful objects of a search and rescue attempt, since they are normally rescued by witnesses, or become a body recovery statistic. It can and does happen, however, given the right circumstances. A person swimming much farther than intended, being carried downstream, or playing tricks on his playmates, can cause panic with a possible organized search and subsequent rescue. One rescue squad must have breathed a collective sigh of relief and disbelief to find their lost swimmer standing in shallow water in mid-lake!

The rescue figures pertaining to aircraft are probably accurate as far as our respondents are concerned, as those men obviously understood the intent of the question.

When the respondent stated that no records of successful rescues were kept, he usually also indicated that a sizable number of searches were made each year, and that records could be obtained from the area search coordinator or rescue squad.

For ratio establishment purposes, the number of cases which were obviously body recovery were tabulated for comparison to the rescue figures. Of those, almost half of the incidents were swimmers, 45% involved boats, and of the boats, one-third were fishermen in boats. About 7% were vehicles that had gone off bridges or roads due to accident or flood waters, and aircraft. In three cases, the incident was suspected suicide.

CHART 9a
 RECORDED SUCCESSFUL SEARCHES AT RESPONDENT WATER RESOURCES
 by Primary Lake Management Agency,
 Water Recreation Category, and Year.

<i>Agency</i>	<i>Year</i>	<i>Total</i>	<i>Boat</i>	<i>Swimmer</i>	<i>Hunter</i>	<i>Fisher*</i>	<i>Aircraft</i>	<i>Other</i>
COE	1974	234	54	26	4	37	1	
	1973	215	50	13	9	59	3	
	1972	172	38	11	10	26	2	
	1971	106	18	9		20	2	
B/R	No records kept							
TVA	1974	21	12	2	4	2	2	
	1973	23	16		4	3	3	
	1972	18	14	1	3	6		
	1971	17	15		4	9	1	
Other	1974	166	43	125**	2	20		
	1973	184	50	114**	1	21	1	
	1972	204	45	117**	2	21	1	
	1971	165	39	99**		18		

* Not possible to separate fishermen from boat-fishermen count.

** Accurate records kept by lifeguard associations, primarily in California.

WHERE FOUND:	1. Engine trouble	117
	2. Sheltered cove in bad weather	81
	3. Not where supposed to be	57
	4. Made own way to shore from disabled craft	23
	5. With capsized boat	6

CONCLUSION

Search and rescue operations on inland lakes bear little resemblance to those experienced by the Coast Guard at sea as far as method and areas covered are concerned. To the people whose lives or property are saved, however, there may be no difference. It is probably the only such experience they will ever have, and the manner in which the search and possible rescue is made will make an indelible impression.

It appears that the inland marine SAR teams are composed primarily of individuals who make their living in local government employment, such as city and county law enforcement agencies, fire departments and game management personnel. Clustered around one or more of these primary agencies are volunteers who use their own equipment and who have had previous training in boat handling and first aid.

I. Very little evidence is given by the respondents to this study of any organized training programs for the volunteers or themselves regarding specifically marine search and rescue. Also, with a few exceptions, it would appear that a minimum document on body recovery and the exercise of common sense may be the only tools of those lake management personnel who have a responsibility for public safety on and around their waters.

Therefore, although actual search and rescue operations will make up only a very small percentage of their time, it would seem that at least an organized plan or standard operating procedure should become a part of the training of personnel engaged in recreational water management. To be effective, the procedures should include an exchange of information and training with those agencies and volunteer groups within the area who participate in search and rescue activity.

If the terms of legal responsibility for the public's safety is specifically called out in a manner that releases the water managing agency entirely, it

should still behoove that agency to be familiar with whatever procedures are to be carried out by the responsible agency. And, unless they are specifically released from responsibility, they should initiate a plan if one is not already in action. If a workable search and rescue plan is already in operation to handle incidents at that resource, it would appear that the water management agency should be thoroughly familiar with the plan, including participation in the drills, at least insofar as communications is concerned.

A certain lack of awareness of any need for such training or procedures would appear to be the cause for the lack of programs, rather than any reluctance on the part of the personnel to be involved. Certainly if they are called upon to be involved in search and rescue activity, without prior training, they in turn could become the objects of search.

Most of the respondents who are already participating in search and rescue operations indicate a willingness to do as much or more than they are already doing. Many of those whose job requirements apparently do not call for them to be involved, also indicate a willingness to participate when and if needed. In the same manner that OSHA requires certain types of employees to take first aid training and keep their certificates renewed, it would appear that first aid training as well as fundamentals in boat handling and marine search and rescue would be a mandatory part of the training for any multi-purpose water resource personnel.

II. Since the marine search and rescue activity on these inland lakes varies from community to community, depending not only upon the type of waters and surrounding land recreation areas, but upon the types and numbers of agencies and groups involved, no one specific operational procedure would serve the purpose. However, the need for at least a communications center and an organizational flow chart is evident.

In the absence of any well organized and operating rescue team effort, the

water resource management could be instructed by their headquarters to initiate a plan, calling upon the local participating agencies and organizations for input. For them to initiate a plan and then not involve the local people would be almost pointless, as most of them are not well equipped enough to perform much of a search by themselves. Also, to ensure cooperation by the local agencies and volunteers, the resource management would probably be well advised to, in most cases, merely act as a coordinator of planning sessions.

The Corps of Engineers already has within their responsibility an instruction to promote local lake safety councils. From the answers we have received, it would appear that this has been done on an individual basis by men to whom the action seemed important, and has not been actively encouraged by any Division or District, excepting the Ohio District. During the boating season of 1974, the Ohio District has been attempting to organize several Lake Safety Councils under Headquarter Directive.

The large number of drownings at TVA lakes has brought about a desire in that agency to attempt some improvement in their safety programs. Although the Bureau of Reclamation's primary problem seems to be drownings in irrigation canals, a pilot program has been underway in the Columbia River Basin, with the assistance of the National Water Safety Congress, with a three county water safety council. Representatives to the council have jurisdiction over a variety of waters, from streams and lakes to canals and ponds.

Among the other agencies involved in water management who responded to the study, there are already a number of well developed programs, as well as areas where only very loose operations are being handled by the local sheriff's department, fire department or rescue squad.

Therefore we have seen that most of the agencies represented in this survey have recognized a need for a search and rescue plan. The State Boating Law Administrators would seem to be the most logical people to request that a program, including an operational plan and training, be initiated or carried

out at all recreational waters within their states. To assist them, the Coast Guard could make a request to heads of the various federal agencies operating recreational waters that they establish a headquarter directive for their personnel to formulate a program, or to allow their lake management people to participate in any program already established.

The work assignment for water resource personnel may include groundskeeping, patrols, engineering duties, public relations, enforcement, clerical work and even game management, and it is understood that requesting that an additional burden be added to some already understaffed groups might produce adverse reaction. However, most of our respondents seem to feel that they have some responsibility for search and rescue activity, but are not properly trained or equipped.

III. From the sampling contained in this study, covering a wide variety of water resources, it would appear that there is little the Coast Guard could do directly to affect search and rescue on inland waters, except at the locations where Coast Guard Groups are already established. Indirect assistance, such as seminars or workshops involving the regional State Boating Law Administrators and all other interested parties, could be utilized to promote the establishment of local search and rescue plans and workable teams. Those agencies that are attempting local lake water safety councils should be encouraged to increase their activities in this direction.

Assistance in the form of outlines for suggested search and rescue procedures and formats for organization could be supplied through some agency or organization already established in the promotion of boating safety in particular, or water safety in general, such as the National Water Safety Congress, the National Safety Council or American Red Cross, if funds for this activity could be made available through the Coast Guard. Standardization of SAR plans and procedures, and any attempt to administer and enforce them would seem to

be unnecessary and virtually impossible.

Most of the equipment items listed as being desired or needed to implement or improve SAR participation could be provided by the primary water resource managing agency if requested. However, the items should be reviewed by the Coast Guard to determine if there are any that would fall into a special category for assistance directly to the agencies or through the states.

If the possibility of using trained Auxiliarists to assist in search and rescue in areas where they are not now active is to be pursued, the specific information on where the lake managers responded that there was no flotilla nearby or in the area could be furnished to the Auxiliary if requested, or to the Coast Guard for use by Directors of Auxiliary.

LIST OF STUDY PARTICIPANTS

ALPHABETICAL BY STATE AND WATER RESOURCE

ALABAMA

Black Warrior & Tombigbee; Demopolis Lake: COE - Lamar M. Hayes, Resource Manager
Colbert Steam Plant: TVA - J. O. Burleson, Lt. Public Safety
Guntersville Dam: TVA - Lt. James H. Brown, Public Safety
Guntersville Lake: TVA - Raymond A. Crabtree, Capt., Public Safety
Guntersville/Nickajack: TVA - Lt. Harley E. Palmer, Public Safety (Widows Creek Plant)
Wheeler Dam: TVA - Lt. Roy D. Caddell, Public Safety
Wheeler Lake (Brown's Ferry): TVA - Capt. R. Eugene Steele, Public Safety
Wilson Dam: TVA - John T. Shearor, Chief, US-TVA Public Safety Service
(For Alabama Rescue Squads - Maj. B. J. Smith, Dept. of Conservation)

ARKANSAS

Beaver Lake: COE - Cleo H. Dark, Res. Engineer
Bull Shoals Lake: COE - Winston B. Campbell, Lake Manager
Dardanelle Lake: COE - J. E. Callaway, Lake & Park Mgr.
DeGray Lake: COE - J. O. Richardson, Park Mgr.
Greers Ferry Dam and Lake: COE - William C. Garner, Res. Engineer
McClellan-Kerr Arkansas River Navigation System: COE - Hal O. Lee, Park Mgr.
Millwood Lake: COE - Jim S. Cyrus, Res. Engineer
Nimrod Lake - Blue Mountain Lake: COE - Louis O. D. Kealer, Res. Engineer
Norfolk Lake: COE - Bryan A. Joyce, Lake Mgr.
Lake Ouchita: COE - Ed Hopper, Park Mgr.

ARIZONA

Alamo Lake: COE - Lowell C. Flannery

COLORADO

Curacanti: National Park Svc. - J. C. Riggs, Chief Park Ranger
Jackson: Mancos Water Conservance District - Lloyd Doerfee, Secretary-Treasurer

CALIFORNIA

Berryessa: B/R - Robert Pritchett, Acting Park Director
Cachuma: Santa Barbara County Park Dept. - William L. Lanford, Park Superintendent
Casitas: Casitas Mun. Water District - James A. Wagoner, Park Superintendent
East Bay Area (Lake Chabot, San Leandro Bay/Alameda Beach, Contra Loma, Shadow Cliffs, Lake Temescal, Pt. Isabelle, Pt. Pinole, Miller Beach, Martinez Marina, Coyote Hills, Cull Canyon, Alameda Creek, Brooks Island: East Bay Regional Park District - Herbert T. Fassler, Admn. Lieutenant
East Park Reservoir: B/R - Howard F. Conley, Concessionaire
Folsom Lake: Dept. of Parks & Recreation - Edward D. Wilson, Manager
Jenkinson Lake - Sly Park: El Dorado Irrigation Dist. - Donald Price, Park Ranger
Millerton Lake at Friant Dam: Dept. Parks & Recreation - Bill Reinhardt, Area Mgr.
Lake Red Bluff: U.S. Fish & Wildlife Svc. - John S. Hanson, Operations Manager
Shasta; Keswick-Britton Lakes; P.G. & E. Reservoirs - Sacramento River: B/R - Richard L. Newsome, Sg., Shasta County Sheriff.
San Luis Reservoir, O'Neill Forbay and Los Banos Detention: Dept. Parks & Recreation - Thomas L. McKnight, Supervising Ranger

Lake Solano: Solano County Parks - L. Dean Kastens, Director of Parks
Skipper's Point, Stony Gorge Reservoir: B/R - David R. Munroe, Concessionaire
Washoe Project (Stampede, Boca, and Prosser Creek Reservoirs:) U. S. Forest Svc -
Troy Kurth, Recreation Officer
Weiser District, Clair Engle and Lewiston Reservoirs: U. S. Forest Service -
Russell W. Engel, District Ranger
Whiskeytown Lake: National Park Service - Carl V. Anderson, Chief, Br. of Recr. Act.
Lake Woollomes: Kern County Parks & Recreation - G. P. Franey, Bus. Mgr.

GEORGIA

Allatoona Lake; COE - David Grabbensteder, Resource Mgr.
Hartwell Lake: COE - William E. Smith, Asst. Resource Mgr.
New Savannah Bluff Lock and Dam: COE - Harold L. Parson, Lockmaster
Walter F. George & George W. Andrews Lakes: COE - Olin M. Taylor, Jr., Resource Mgr.

IDAHO

Central Snake Projects Office: B/R - Robert J. Brown, Superintendent

INDIANA

Carlyle Lake: COE - Wayne L. McNair, Asst. Lake Mgr.
Crab Orchard Lake: U.S. Fish & Wildlife Service - Wayne D. Adams, Project Mgr.
Rend Lake: COE - Phillip K. Jenkins, Park Mgr.
Lake Shelbyville: COE - Charles L. Kennedy, Park Ranger

IOWA

Coralville Lake: COE - John V. Story, Park Mgr.
Rathbun Lake: COE - Robert L. Hiatt, Project Mgr.
Red Rock Lake and Dam: COE - James E. Wilkinson, Park Mgr.

KANSAS

Cheney Reservoir: Wichita Water Dept. - Gerald Hall, Water Supply Spvr.
Kanapolis Lake: COE - C. E. Wells, Project Mgr.
Marion Lake: COE - C. G. Wilson, Project Mgr.
Melvern Lake: COE - Emil J. Kroutil, Project Mgr.
Milford Lake: COE - L.E. Brown, Project Mgr.
Lake Perry: COE - Lynn C. Myers, Park Manager
Pomona Lake: COE - James H. Thurman, Chief Ranger
Tuttle Creek Lake: COE - J. E. Johnston, Project Mgr.

KENTUCKY

Barron River Lake: COE - Neil A. Connell, Resource Mgr.
Fishtrap Lake: COE - James E. Downs, Resource Mgr.
Grayson Lake: COE - James F. Napier, Resource Mgr.
Green River: TVA - Robert L. Wood, Lt. Public Safety
Kentucky Lake: TVA - Lt. Edwin Jones, Public Safety
Rough River Lake: COE - George A. Hall, Resource Manager

MINNESOTA

Leech Lake Dam: COE - Orin C. Henderson, Dam Tender
Pine River Dam: COE - Walter F. Hermerding, Dam Operator
Pokegama Lake: COE - Clarence Bernardson, Dam Operator
Sandy Lake Dam: COE - Donald Daly, Dam Operator
Winnibigoshish: COE - Irving L. Seelye, Dam Tender
b.

MISSISSIPPI

Arkabutla Lake; COE - Thomas H. Hearn, Asst. Park Manager
Enid Lake: COE - Robert S. Williams, Park Mgr.
Grenada Lake: COE - Tom Norton, Lake Manager
Okatibbee Dam & Lake: COE - William B. Pennington, Resource Mgr.

MISSOURI

Pomme de Terre: COE - Virgil L. Peterson, Proj. Mgr.
Stockton Lake: COE - George P. Ramirez, Proj. Mgr.
Tablerock Lake: COE - Richard B. Groufs, Resident Engineer
Lake Wa-papello: COE - William N. Harris, Park Mgr.

MONTANA

Hungry Horse Reservoir: B/R Neil Chapin, Chief of Operations

NEVADA

Rye Patch State Recreation Area: State Park System - David L. Neasham, District Ranger
Lahonton State Recreation Area: same as above.

NEW MEXICO

Abiquiu Dam. COE - Lymon E. Reynolds, Res. Supt.
Cochita Lake and Dam: COE - Jerry L. Hammers, Res. Sup.
Conchas Lake: COE - Robert A. Buchhagen, Res. Supt.

NORTH CAROLINA

Fontana Lake: TVA - Willard M. Hawk, Lt. Public Safety
Hiwassee: TVA - Ralph J. Popejoy, Lt. Public Safety
W. Kerr Scott Dam and Reservoir: COE - James E. Mason, Resource Mgr.

NORTH DAKOTA

Lake Ashtabula/Baldhill Dam: COE - Manager

OHIO

Charles Mill Lake: COE - Hilbert Schrack, Project Supt.
Clarence J. Brown Dam & Reservoir: COE - William E. Ripley, Area Resource Mgr.
Clendening Lake: COE - Earl Z. Horner, Proj. Supt.
Delaware Lake: COE - Leo M. Sansom, Proj. Supt.
Dillon Lake: COE - Thomas F. Lilly, Proj. Supt.
Michael J. Kirwan Dam and Reservoir: COE - Harold J. Conner, Proj. Supvr.
Mosquito Creek Lake: COE - Ralph E. Jamison, Proj. Supervisor
Muskingum Watershed Conservancy Dist: (Atwood, Leesville, Tappan, Clendening, Piedmont,
Charles Mill, Pleasant Hill, Seneca)- Charles S. Alpeter, Chief Ranger
Paint Creek Lake: COE - Ronald E. Brickey - Archie R. Lilly, Ranger

OKLAHOMA

Lake of the Arbuckles: National Park Service - Richard A. Blasdel, Sup. Park Ranger
Broken Bow Lake: COE - Jim S. Cyrus, Resident Engineer
Canton Lake: COE - Jimmie D. McFeeeters, Resident Engineer

Fort Gibson Lake: COE - Jonii P. Clark, Resident Engineer
Fort Supply Lake: COE - James A Holder, Project Manager
Great Salt Plains Lake: COE - Earl V. Rodkey, Project Engineer
Heyburn Lake: COE - Jack G. Perry, Lake Ranger
Heyburn Lake: COE - Jack Compton, Reservoir Mgr.
Mountain Park Dam & Reservoir: B/R - Robert H. Welsh, Office Engineer
Oologah Lake: COE - Ray L. Kunka, Park Mgr.
Overholser, Hefner and Stanley Inlet: Oklahoma City Game and Fish - John H. Davee,
Chief Lakes Ranger
Tenkiller Ferry Lake: COE - John P. Clark, Resident Engineer
Wister Lake: COE - Bedford Duncan, Ranger

OREGON

Gerber Reservoir: Bureau of Land Management - Marvin LeNoue, Dist. Mgr.

SOUTH CAROLINA

Lewis and Clark Lake: COE: Lorenz M. Fox, Water Recreation
Lake Francis Case: COE - James W. Sellers, Recreation Resource Mgr.

TENNESSEE

Boone Dam: TVA - Walter J. Vance, Pub. Safety Service
Center Hill Lake: COE - James F. Robbins, Ranger
Cherokee Lake: TVA - Maxey L. Sircy, Lt. Public Safety
Chattanooga Unit: TVA - Lt. Parks E. Standridge
Chickamauga Lake: TVA - Capt. Lawrence H. Harless
Chickamauga Dam: TVA - Lt. Leonard E. Standiter
Cordell Hull Reservoir: COE - Richard H. Puckett, Resource Mgr.
Dale Hollow: COE - William C. O'Neal, Resource Manager
Cumberland River: TVA - Jacob F. Strouse, Jr., Lt. Public Safety
Douglas: TVA - Lt. Maxey L. Sircy
Fort Loudon Dam: TVA - Lt. Virgil W. Brown, Public Safety
Loudon Lake: TVA - Benjamin W. Browne, Lt. Public Safety
Guntersville, Nickajack: TVA - Harley E. Palmer, Lt. Public Safety
J. Percy Priest Reservoir: COE - William G. Redmon, Reservoir Mgr.
John Sevier Steam Plant: TVA - Walter C. Vance, Lt. Public Safety
Kentucky Lake: TVA - Jacob F. Strouse, Jr., Lt. Public Safety
Melton Hill Dam: TVA - Lt. Virgil W. Brown, Public Safety
Melton Hill Lake: TVA - Fred J. Smith, Lt. Public Safety
Mississippi River - Memphis Area: TVA - Murray McCullough, Lt. Public Safety
Tennessee River - Nickajack Lake: TVA - Leonard E. Hancock, Capt. Public Safety
Norris Lake: TVA - Fred J. Smith, Lt. Public Safety
Old Hickory Lake: TVA - Paul E. Goad, Lt. Public Safety
Pickwick Dam: TVA - Lt. J. O. Burleson, Public Safety
South Holston Dam: TVA - Glen M. Lowe, Lt. Public Safety
Watauga Dam: TVA - Glen M. Lowe, Lt. Public Safety
Watts Barr Lake: TVA - Lt. Eugene Evans (Kingston Steam Plant)
Watts Barr Lake and Dam: TVA - Capt. C. F. Witt, Public Safety

TEXAS

Bardwell Lake: COE - J. T. Alewine, Park Mgr.
Belton Lake: COE - Walter R. Mathis, Park Mgr.
Benbrook Lake: COE - Jimmy R. Hurt, Park Mgr.
Canyon Dam: COE - C. L. Murphy, Acting Reservoir Mgr.

O. C. Fisher Dam and Lake: COE - Delbert A. Caffey, Reservoir Mgr.
Lake Granbury: Brazos River Authority - William T. Moore, Reservoir Division Mgr.
Grapevine Lake: COE - Guy Hopson, Reservoir Mgr.
Eagle Mountain Lake: Tarrant Co. Water Control & Improvement District Number One -
Charles R. Whaylen, Ass. to Gen. Mgr.
Hords Creek Lake: COE - Thomas L. Halfmann, Park Manager
Lavon Lake: COE - Charles W. Screeton, Res. Mgr.
Lewisville Lake: COE - Michael D. Owen, Park Manager
Lake Livingston: Trinity River Authority- Larry Smailhall, Asst. Mgr.
Lake Meredith: National Park Service - Larry K. Nielson, Chief Ranger
Lake Nasworthy, Twin Buttes Reservoir: San Angelo Water Dept. - Thomas L. Koederitz, Supt.
Lake O' The Pines: COE - Omer L. Stafford, Manager
Possum Kingdom: Brazos River Authority - William T. Moore, Reservoir Div. Mgr.
Proctor Lake: COE - Garvin E. Hendon, Reservoir Mgr.
Sam Rayburn Reservoir: COE - Aubrey J. Dry, Sr., Project Engineer
E. V. Spence Reservoir: Colorado River Mun. Water Dist - R. A. Schooling, Admn. Asst.
Lake Tawakoni: Sabine River Authority of Texas - Danny Choate, Iron Bridge Div. Mgr.
B. A. Steinhagen Lake, Town Bluff Dam: COE - Charles L. Rogers, Reservoir Mgr.
Town Bluff Dam: COE - Thomas R. Thomsen, Park Ranger
Lake Texoma: COE - Otis K. Higginbotham, Resident Engineer
Lake J. B. Thomas: Colorado River Mun. Water Dist. - R. A. Schooling, Admn. Asst.
Waco: COE - Richard E. Booker, Ranger
Wallace Lake: COE - O. L. Stafford, Mgr.
Wright Patman Dam & Lake: COE - James A. Carter, Jr., Park Mgr.

VIRGINIA

North Fork of Pound River Lake: COE - Gerald T. Dowell, Ranger
Philpott Lake: COE - M. D. Ruddle, Resource Mgr.
Smith Mountain Lake: Smith Mountain Lake Assoc. Inc. - Frederic A. Munson, President

WASHINGTON

Snogualmik National Forest Lakes: B/R - James W. Gilbery, Safety Officer
Banks Lake and Roosevelt Lake: B/R - Tom G. Skordas, Safety Manager
Columbia Basin Project: B/R - John S. Unbewust, Project Manager

WEST VIRGINIA

East Lynn Lake: COE - Loyal E. Smith, Resource Manager
Tygart Lake: COE - Earl Tressler, Jr., Project Supervisor

INVENTORY - DIRECTORY

SEARCH AND RESCUE FACILITIES OF INLAND WATERS OF
THIRTY STATES
UNDER PRIMARY MANAGEMENT OF THE U.S. ARMY CORPS OF ENGINEERS,
BUREAU OF RECLAMATION, TENNESSEE VALLEY AUTHORITY, AND VARIOUS
OTHER FEDERAL AGENCIES AND CERTAIN MUNICIPALITIES.

(Listed alphabetically, by State and by water resources within the states; a total of 176 water resources lying primarily within thirty states.)

ALABAMA

BLACK WARRIOR & TOMBIGBEE LAKES DEMOPOLIS LAKE

COE - Lamar M. Hayes, Resource Mgr., P.O. Box 520, Demopolis, Al. 36732
205/289-3540

SAR responsibility at resource: Judson S. Smith, Chief Ranger, above address.

SAR TEAM: None

SHERIFF: Billy Smith, Sheriff, Marengo County, 101 E. Coats Ave. Linden, Al
295-2301

VOLUNTEERS: Marengo County Rescue Squad
Linden Al.
295-8011 c/o Capt. Jamie Walters

COORDINATOR: Sheriff of applicable county. (See Other Agencies)

OTHER AGENCIES: GreeneCounty Rescue Squad, 372-3544 bus: 372-9915 C. Brown
Jackson Rescue Squad
Thomasville Rescue Squad
Jinright Rescue Squad

U/W: Jinright Rescue Squad, Tuscaloosa c/o W. P. Callahan, 2527 - 6th St.

HOSPITAL* Bryan W. Whitfield Memorial, Demopolis. 289-1270 (4-1/2 mi.)

COLBERT STEAM PLANT

TVA - J. O. Burleson, Lt. Public Safety, Box 2000, Tuscumbia, Al. 35674
383-6725

SAR responsibility at resource: None assigned

SAR TEAM

Colbert C. Rescue Squad
c/o C.D. Dir., County CtH Annex
Tuscumbia, Al. 35674
381-3210

Cherokee Rescue Squad
P.O. Box 241
Cherokee, Al.
359-4991

*Burn/Explosion treatment available.

Colbert Steam Plant - continued

SHERIFF: C. G. Ayers, Colbert County Sheriff, Tuscumbia, Al. 383-0741

CORONER: Jessie York, 501 Broad, Sheffield, Al. Day phone: 383-0524

COORDINATOR: Fred Mauldin, Cherokee Rescue Squad, Cherokee, Al. 359-4991

HOSPITAL*: Colbert Co. Hosp., 10th Street, Sheffield, Al. 383-2821 (10 mi.)

GUNTERSVILLE DAM

TVA - Lt. James H. Brown, P.O. Box 399, Guntersville, Al. 35976 205/582-3907

SAR responsibility at resource: None assigned

SAR TEAM: Guntersville Rescue Squad
P. O. Box 52
Guntersville, Al.
582-8153

SHERIFF: L. P. Dickson, Guntersville., Al. 582-3412

CORONER: James White, Alberville, Al. Days: 878-0231 Night: 878-6657

VOLUNTEERS: Arab Rescue Squad, Arab Fire Dept., Box 491, Arab, Ala. 35016
586-8124

U/W: Robert Glenn, 802 Second Ave., Arab, Al. 35016. 586-3683

HOSPITAL: Guntersville City Hosp. 582-5671 (12 mi.)
Not equipped for severe burn/explosion treatment.

GUNTERSVILLE LAKE

TVA - Raymond A. Crabtree, Capt., TVA Public Safety, Box 2000, Hollywood, Al. 35752
205/259-1521

SAR responsibility at resource: None assigned

SAR TEAM Sand Mountain Rescue Squad
Pisgah, Ala. 35765
451-3991

CORONER: W. R. Henshaw, 513 Laurel St., Scottsboro, Al. Days: 574-3965
Nights: 574-2918

COORDINATOR: Raymond Crabtree
On duty Public Safety Officer until Capt. Crabtree arrives.

HOSPITAL*: Jackson County Hospital, Scottsboro, Al. 574-2460 (11 mi.)

GUNTERSVILLE/NICKAJACK

TVA - Lt. Harley E. Palmer, Widows Creek Steam Plant, Stevenson, Al. 35772
615/837-6380

SAR responsibility at resource: None assigned.

Guntersville/Nickajack - continued

SAR TEAM

North Sand Mountain Rescue Unit
c/o Harry Laney
Pisgah, Ala. 451-3991

Jackson Co. Sheriff Department
c/o W. R. Collins
Scottsboro, Ala. 574-2610

Alabama Water Safety Patrol
c/o Mickey Bell
Scottsboro, Ala. 574-6606

Police Depts./ Stevenson & Bridgeport
Stevenson, Ala. 437-2920
Bridgeport, Ala. 495-2211

CORONER: W. R. Henshaw, Scottsboro, Ala. Days - 574-3965

COORDINATOR: Curtis B. Sauer, Pub. Svc. Branch, TVA. 105 WCB, Knoxville, Tn.
615/637-3276
Lt. Harley E. Palmer, Widows Creek Steam Pl. 615/837-6380

HOSPITAL* North Jackson Hosp. 437-2288 (3 mi.)
South Pittsburg Mun. 837-6781 (12 mi.)

WHEELER DAM

TVA - Lt. Roy D. Caddell, Town Creek, Ala. 35672, 205/729-6202

SAR responsibility at resource: None assigned.

SAR TEAM

Colbert County Rescue Squad
c/o C.D. Dir., Courthouse Annex
381-3210

Florence Fire Dept.
Florence, Ala. 35630
764-2612

Alabama Water Patrol
c/o Alan McDowell
Montgomery Ala.
247-0464

U. S. Coast Guard, C.G. Depot
Sheffield, Ala. 35660
383-4464

SHERIFF: Don Ligon, Moulton, Ala. (Lawrence Co.) 974-8782

CORONER: Malcolm-H. Boyles, Moulton, Ala. Day 974-8636 Night 974-8636

VOLUNTEERS: Fisherman's Resort (boats only)

HOSPITAL* Eliza Coffee Memorial, 600 W. Alabama, Florence, Ala. 764-8321 (20 mi.)

WHEELER LAKE (Brown's Ferry)

TVA - Captain R. Eugene Steele, P.O. Box 2000, Decatur, Ala. 35601 205/729-6202
(US-TVA Brown's Ferry Nuclear Plant)

SAR responsibility at resource: None assigned.

SAR TEAM:

Limestone County Rescue Squad
c/o Sheriff, Athens, Ala.
Day 205/232-0111 or 232-1530

Alabama Water Safety Patrol
314 Robinson Ave.
205/353-7197

Wheeler Lake - continued

U. S. Coast Guard, C. G. Depot, Village 1
205/383-4464

SHERIFF: Limestone Co. Sheriff, Athens, Ala. 205/232-0111 or 232-1530

COORDINATOR: Limestone Co. Rescue Squad, 205/232-0111 or 232-1530

HOSPITAL: Athens-Limestone County Hosp., Athens. 205/232-4141 (12 mi.)
(Not equipped for severe burn/explosion treatment.)

WILSON DAM

TVA - John T. Shearor, Chief, US-TVA, Public Safety Service, CESB, Muscle Shoals, Ala.

SAR responsibility at resource: Not assigned

SAR TEAM

Cherokee Rescue Squad Box 241 Cherokee, Ala. 35660 381-2183 or 359-4901	State Water Safety Patrol 718 Lakeside Drive Florence, Ala. 35630 247-0464
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U. S. Coast Guard
Village 1, Sheffield, Ala. 35660
383-4464

SHERIFF: Colbert County Sheriff or Lauderdale County Sheriff

CORONER: Jessie York, Sheffield, Ala. 35660

COOPERATING ORGANIZATIONS:

Colbert Rescue Squad Courthouse Annex Sheffield, Ala. 35660 383-5757 Unit Commander Lee Blackburn Tuscumbia, Ala. 381-3210	Lauderdale Rescue Squad Municipal Bldg. Florence, Ala. 35630 764-3599
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HOSPITAL* Colbert County Hosp., Sheffield, Ala. 35660 383-2821 (5 mi.)

ARKANSAS

BEAVER LAKE

COE - Cleo H. Dark, Res. Engineer, P. O. Box H, Rogers, Ark. 72756 501/636-1210

SAR responsibility at resource: Not specific - Beaver Resident Office

SAR TEAM

Benton County Civil Defence Unit Bentonville, Ark. 273-3124	Springdale City Rescue Unit Springdale, Ark. 751-7411
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Beaver Lake, Continued

Rogers City Rescue Unit
Rogers, Ark.
636-1234

Fayetteville City Rescue Unit
Fayetteville, Ark.
442-2311

SHERIFF: James Pearson, Benton County Courthouse, 273-5532

COORDINATOR: Harley True, Civil Defense, Admn. Bldg., Bentonville. 501/273-3124

OTHER AGENCIES: U. S. Fish & Wildlife Svc., Arkansas Game & Fish Comm.

HOSPITAL: Rogers Memorial, 13th & Walnut, Rogers, Ark. 636-1300 (2 miles)

BULL SHOALS LAKE

COE- Winston B. Campbell, Lake Manager, P. O. Box 369, Mountain Home, Ark.

SAR responsibility at resource: Glenn Priebe, Chief Ranger

SAR TEAM

Mountain Home Rescue Unit
Mountain Home Fire Dept.
425-2211

Bull Shoals (city) Rescue Unit
Bull Shoals, Ark.
445-3902

Scuba Rescue Squad
Scuba-Doo Dive Shop
Mountain Home, Ark.
492-5062

Yellville Rescue Unit
Yellville, Ark.
501/449-6211

SHERIFF: Marion County, Ralph Methvin - Of. 449-6616 Home 449-4318
Baxter County, Jack Gregory - Of. 425-2400 Home 425-3939
Boone County, Buck Green - Of. 365-8404 Home 365-9595
Taney County, Bardwell - Of. 546-2191
Ozark County, Herman Pierce - Of. 679-3512

COORDINATOR: Sheriff of county where incident occurs.
On-scene: Ranger until sheriff arrives.

HOSPITALS: Mountain Home - 425-3141 (17 mi.) None equipped for treatment
Harrison - 365-6141 (20 mi.) of severe explosion/burns
Branson - 334-3155 (20 mi.)
Yellville - 449-6211 (12 mi.)

U/W Team: Jim and Mary Jo Traver, Scuba Doo Dive Shop - 501/492-5062

GREERS FERRY DAM AND LAKE

COE - William C. Garner, Res. Engnr. P. O. Box 310, Heber Springs, Ark.
501/362-2416

SAR responsibility at resource: Ranger & Surveillance Section - Res. Office
Henry Smith, Cricket Cover, Heber Springs, Ark.

Greers Ferry, - Continued

SAR TEAM: None organized

SHERIFF: Delane Wright, Heber Springs Courthouse 501/362-2411

CORONER: Dr. William Wells, 4th & Spring, Heber Springs. 501/362-3143 days
362-3644 nights

VOLUNTEERS:

Greers Ferry Fire & Emer. Unit Greers Ferry Gen. Del. 501/825-6843	Fairfield Bay Rescue Unit Fairfield Bay Marina 501/884-3333 c/o Dick Bailey
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COORDINATOR: Delane Wright, Cleburne County Sheriff
Charles Parrott, Deputy Sheriff

HOSPITAL*: Cleburne County Hosp. Heber Springs 501/362-3121 (3 mi.)

DARDANELLE LAKE

COE - J. E. Callaway, Lake & Park Mgr., P.O. Box 1087, Russellville, Ark. 72801
501/968-5008

SAR responsibility at resource: Not assigned

SAR TEAM: None organized

SHERIFF: Bill Abernathy, Pope County Cth, Russellville, Ark. 501/968-3232

VOLUNTEERS: Pope County Civil Defense
1109 W. 17th Circle Drive
Russellville, Ark. c/o Donald E. Pickard

HOSPITAL*: St. Mary's, 1808 Main St., Russellville, Ark. 868-2841 (10 mi.)

DE GRAY LAKE

COE - J. O. Richardson, Park Mgr., Box 497, Arkadelphia, Ark. 71923 501/246-5502

SAR responsibility at resource: J. O. Richardson

SAR TEAM: None organized

SHERIFF: B. R. Hasley, Arkadelphia, Cth. 501/246-2222

VOLUNTEERS: Clark County Rescue Unit
Arkadelphia
246-2424 c/o Fire Dept.

COORDINATOR: Ranger on duty.

HOSPITAL*: Clark County Memorial, Arkadelphia. (9 mi.)

MC CLELLAN-KERR ARKANSAS RIVER NAVIGATION SYSTEM

COE - Hal O. Lee, Park Mgr., Box 7835, Pine Bluff, Ark. 71601 501/534-0451

SAR responsibility at resource - not assigned

SAR TEAM

Jefferson County Sheriff, Cth.
Pine Bluff, Ark. 71601
501/534-6012

Civil Defense
200 E. 8th
Pine Bluff, Ark.
501/535-5649

HOSPITAL* Jefferson Hosp., 1515 W. 42nd, Pine Bluff. 501/535-6800 (12 mi.)

MILLWOOD LAKE

COE - Jim S. Cyrus, Res. Engr., Rte. 1, Box 37A, Ashdown, Ark. 71822 501/898-3343

SAR responsibility at resource: Jim L. Findley, Park Manager

SAR TEAM

Resident Office & Rangers

Arkansas Game & Fish Comm.

Little River Co. Sheriff's Office
351 N. 2nd
Ashdown, Ark. 71822
501/898-3411

2 Capital Mall
Little Rock, Ark. 72201
501/371-1025

Hempstead Co. Sheriff's Office
351 N. 2nd
Ashdown, Ark. 71822
501/898-3411

Sevier Co. Sheriff's Office
DeQueen Ark. 71832
501/584-2125

Conrad Bagley, Sheriff Howard County
Nashville, Ark. 501/845-2626

CORONER: Dr. Jim Armstrong, 2nd & Main, Ashdown. 898-3306 days; 898-2280 night

COORDINATOR: Jim L. Findley, COE, 1550 Harold Dr., Ashdown. 501/898-5824

VOLUNTEERS: S. T. Johnson
910 Park, Ashdown
501/898-2230
c/o Millwood Bass Club

Cypress Slough Concession
Cypress Slough, Ashdown
501/898-2680
c/o Paul Millwee

U/W Team: Hubert Dungan
1704 Breckenridge
Texarkana, Tx. 75501
214/838-9659

Ark. Game & Fish officer
2 Capital Mall, Little Rock
501/371-1025

HOSPITAL: Little River Memorial, 5th & Lock St., Ashdown. 898-3322 (10 mi.)
(Not equipped for treatment of severe explosion/burn injuries)

NIMROD LAKE - BLUE MOUNTAIN LAKE

COE - Louis O. D. Kealer, Res. Engr., Nimrod-Blue Mtn. Res. Of., Plainview, Ark.
72857 501/272-4324

SAR responsibility at resource: Park Manager, COE

Nimrod Lake - continued

SAR TEAM: None organized

SHERIFF: Carlos Mitchell, Yell County, Dardanelle, Ark. 501/495-2811

COORDINATOR: C.K. Shelton, COE 501/272-4324
L.O.D. Keeler

HOSPITAL: Yell County Hosp. Danville, Ark. 501/495-2241 (25 mi.)
(Not equipped for treatment of severe explosion/burn injuries)

NORFOLK LAKE

COE - Bryan A. Joyce, Lake Mgr., Box 369, Mountain Home, Ark. 72653 501/425-2700

SAR responsibility at resource: Not assigned.

SAR TEAM: None

SHERIFF: Mountain Home, Ark. 72153 501/425-2400

HOSPITAL: Baxter General, Mountain Home 501/425-3141

LAKE OUCHITA

COE - Ed Hopper, Park Mgr., P.O. Box 4, Mt. Pine, Ark. 71956 501/769-2101

SAR responsibility at resource: Ed Hopper, COE

SAR TEAM: Garland Co. Sheriff Montgomery Co. Sheriff
Hot Springs, Ark. Mt. Ida, Ark.

COORDINATORS: Ed Hopper, Larry Field; James Young, COE Field Office, until
sheriff of county where incident takes place arrives on scene.

VOLUNTEERS: Concessionnaires Local C.G. Auxiliary units

U/W: Called in by respective sheriffs. Two teams available.

HOSPITAL: Ouchita Memorial (12 mi.)
St. Joseph Memorial, Hot Springs, Ark. (70 mi.)

A R I Z O N A

ALAMO LAKE

COE - Lowell C. Flannery, P.O. Box 2711, 300 No. Los Angeles Street, Los Angeles,
Ca. 90053 213/688-5308

SAR responsibility at resource - not assigned.

SAR TEAM: Yuma County Sheriff Substation, Salome, Ariz. 602/859-3318

COORDINATOR: Robert E. Land, Chief, Operations Branch, Los Angeles 213/688-5620
On scene: Ron Craig, Park Ranger, Arizona Parks Dept.

Alamo Lake - continued

HOSPITAL: Wickenburg Community Hosp., Wickenburg, Ariz. 85358 602/684-5421
(52 mi. via back road. Via Wenden, 100 mi.)

C O L O R A D O

CURACANTI

NPS - National Park Service - Curacanti National Recreation Area
J. C. Riggs, Chief Park Ranger, P. O. Box 1040, Gunnison, Co. 81230
303/641-0430

SAR responsibility at resource: Chief ranger

SAR TEAM: In process of being formed

SHERIFF: Claude Porterfield, 200 E. Virginia, Gunnison 641-1113

CORONER: C. J. Miller, 127 W. Virginia Ave. 641-1503

COOPERATING AGENCIES: Marinas - boats only

Gunnison Co. Sheriff's Possee Monarch Search and Rescue
Gunnison County, Gunnison Gunnison
641-1242 641-1242 c/o sheriff

COORDINATOR: James Riggs, Chief Ranger, NPS Box 1040 Gunnison 6410403
On-scene - Thomas W. Griffiths, District Ranger, Blue Mesa or
Donald Hill, District Ranger, Morrow Point

U/W: Thomas W. Griffiths James C. Riggs
Box 1040 Box 1040
Gunnison 641-0403 Gunnison 641-0403; 641-2771

Other divers available, but NPS liability procedures call for Park Service
Certified divers only.

HOSPITAL: Gunnison County Public Health Hosp., 214 E. Denver Ave., Gunnison,
Co. 81230 641-1456 (18 mi.)

(Not equipped for treatment of severe explosion/burns)

JACKSON

MANCOS WATER CONSERVANCE DISTRICT, Mancos, Colorado 81328
Lloyd Doerfee, Secretary-Treasurer 533-7325

SAR responsibility at resource: Not assigned

SAR TEAM: None

VOLUNTEERS: Sheriff Possee, Cortez, Colorado 565-3701

U/W: Skin divers at Framington, New Mexico

HOSPITAL: Cortez Memorial (30 mi) Mercy† Durango (35 mi.)

C A L I F O R N I A

LAKE BERRYESSA

B/R - Robert Pritchett, Acting Park Director, 5520 Knoxville Rd., Napa, California
Conservation, Development and Planning Department (Mid-Pacific Region)

SAR Responsibility at resource: Dennis Land, Supervising Park Ranger

SAR TEAM: Napa County Sheriff's Office

SHERIFF: Earl Randol, Court House, Napa, Ca. 707/255-5500

CORONER: Same address and phone; coroner on duty.

COOPERATING AGENCIES:

Para Rescue Team, Sgt. in command 41 St., Pararescue Section McClellan AFB Sacramento, Ca. 916/643-5188	EOD-DET-Sgt. in command Concord, Ca. Base number - 415/761-2578
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COORDINATOR: Dennis Land, Berryessa Hdq., 5520 Knoxville Rd., Napa. 707/966-2121
Radio dispatcher/Park Ranger on duty

U/W: Cooperating agencies above

HOSPITAL*: Queen of the Valley, 1000 Transas St., Napa 707/224-7811 (25 mi.)

CACHUMA LAKE

SANTA BARBARA COUNTY Park Department - William L. Lanford, Park Superintendent
Cachuma Recreation Area, Star Route, Santa Barbara, Ca. 93105 805/688-4658

SAR responsibility at resource: William L. Lanford, or R. W. Place, Asst. Supt.

SAR TEAM: Santa Barbara Co. Sheriff

HOSPITAL*: Santa Ynez, 700 Alamo Pintado Road, Solvang, Ca. 688-6431

LAKE CASITAS

CASITAS MUNICIPAL WATER DISTRICT - James A. Wagoner, Park Superintendent, 11311
Santa Ana Road, Ventura, Ca. 93001 805/649-2233

SAR responsibility at resource: Ron Thiele, operations ranger, above address

SAR TEAM

Ventura County Fire Department Santa Paula, Ca. 93060 805/648-7714	Ventura County Sheriff's office Ventura, Ca. 805/648-3311
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COOPERATING AGENCY: Department of Navigation & Ocean Development, Sacramento, Ca.
(Notify in case of death or accident)

Lake Casitas - continued

U/W: Both Ventura County Fire Dept and Ventura County Sheriff's department

HOSPITAL* Ojai Valley Community Hospital, Ojai, Ca. 93023 646-1401 (5 mi.)

EAST BAY AREA

PARK- Herbert T. Fassler, Admn. Lieutenant, 7901 Redwood Rd., Oakland, Ca. 94619
East Bay Regional Park District 415/531-9300

SAR responsibility at resource: Captain A. P. Souza, Dept. of Public Safety
and Officer Gary Martin - in charge of Boat Safety Program

SAR TEAM: None organized

SHERIFF: Sheriff Ramsey, Contra Costa County, Admn. Bldg., Martinez, Ca.
228-3000 (Also coronor office)

U/W: Contra Costa County Sheriff's Underwater Diving Team
Above address and phone
c/o Water Rescue

COORDINATOR: Captain Souza
On-scene: first officer on scene

COOPERATING AGENCIES: Lifeguards of concessionaires are part of team.
East Bay Regional Park District Lifeguards
11500 Skyline Blvd.
Oakland, Ca. 94619
415/531-9300

HOSPITAL: Delta Memorial, 3901 Lone Tree Way, Antioch, Ca. 825-7660 (3 mi.)

EAST PARK RESERVOIR

B/R - Howard F. Conley, Concessionaire, Star Route, Stonyford, Ca. 95970
916/934-7066 - East Park Reservoir (Irrigation Project - Orland)

SHERIFF: Sheriff or resident deputy, Colusa, Ca. 916/963-3073

CORONOR: Howard H. Moore, 107 - 5th Street, Colusa 916/458-2111

HOSPITAL: Glenn General, Willows, Ca. 95988 916/934-3351
(Not equipped for treatment of severe explosion/burns)

FOLSOM LAKE

DEPT. OF PARKS & Recreation - Folsom Lake State Recreation Area
Edward D. Wilson, Manager, 7806 Folsom-Auburn Rd., Folsom, Ca. 95630
916/988-0205

SAR responsibility at resource: State Park Ranger II
Jake Zaiger, Public Protection & Assistance
Ranger

Folsom Lake - Continued

SAR TEAM: Not officially organized

COOPERATING AGENCIES:

El Dorado Co. Sheriff's Office
300 Fair Lane
Placerville, Ca. 95667
933-1061

Sacramento County Sheriff
711 G Street
Sacramento, Ca. 95814
441-3441

Placer County Sheriff
P. O. Box 351
Auburn, Ca. 95603
823-4321

Folsom City Police Dept.
50 Natoma St.
Folsom, Ca. 95630
985-4848

CORONER: Appropriate county (sheriff) as above.

VOLUNTEERS: Ladies in White, 7641 Greenback Lane, Citrus Heights 726-2433
c/o Citrus Heights Fire Dept.

U/W: Under appropriate county coronor

HOSPITAL*: Roseville Community Hospital, 333 Sunrise Blvd., Roseville, Ca. 95678
783-911 (6 mi.)

JENKINSON LAKE - SLY PARK

EL DORADO IRRIGATION DISTRICT - Donald Price, Park Ranger, P.O. Box 1047, Placer-
ville, Cal. 95667 916/644-2545

SAR responsibility at resource: Not assigned

SAR TEAM

El Dorado County Sheriff
300 Fair Lane
Placerville, Ca. 95667
622-2211

Pollock Pines Camino Fire Dept. &
Rescue
6430 Pony Express Trail
Pollock Pines, Ca. 95726
644-2934

E. M. Axtell, Chief
Folsom Field Div.
P.O. Box 37, Folsom 988-1707

CORONOR: Richard Pacileo, 300 Fair Lane 626-2211 day or night

COORDINATOR: Ralph Phillips, El Dorado Irr. Dist., P.O. Box 1047, Placer ville
644-2545
On-scene: Donald Price, Park Ranger

U/W: El Dorado County Sheriff

HOSPITAL*: Marshall Hospital, Marshall Way, Placerville 622-1441 (22 mi.)

MILLERTON LAKE
AT FRIANT DAM

DEPT. PARKS & RECREATION - Bill Reinhardt, Area Mgr., P. O. Box 205, State Recreation Area at Friant, Cal. 93626 209/822-2332

SAR responsibility at resource: Bill Reinhardt and Boat Patrol Section Rangers

SAR TEAM

Fresno County Sheriff's Dept.
Law Enforcement Bldg.

Madera County Sheriff's Dept.
County Bldg.

COORDINATOR: Bill Reinhardt
On-scene: Senior Patrol Ranger

HOSPITAL*: Valley Medical Center, 445 S. Cedar Ave., Fresno, Ca. 93712 (26 mi.)

LAKE RED BLUFF

U.S. FISH & WILDLIFE SVC. - John S. Hanson, Operations Mgr., P.O. Box 1050 (Tehama-Colusa Fish Facilities) Red Bluff, Ca. 96080 916/527-7440

SAR responsibility at resource: None assigned

SAR TEAM: None. All done by sheriff's office.

SHERIFF: Ronald Koenig, Tehama County, Red Bluff, Ca. 527-1551

CORONER: Andrew Ward, Red Bluff, Ca. 527-0250 day or night

U/W: Coronor

HOSPITAL: St. Elizabeth, Red Bluff, Ca. 527-2112 (Not equipped for treatment of severe explosion/burns)

SHASTA
KESWICK-BRITTON LAKES; P.G.&E RESERVOIRS-SACRAMENTO RIV.

B/R - Richard L. Newsome, Sgt., Shasta County Sheriff, P.O. Box 4447, Reading, Ca. 96001 916/246-5741

SAR responsibility at resources: Sgt. Dick Newsome

COOPERATING AGENCY: S. Co. Sheriff's Flying Posse, P.O. Box 4447 (same phone)

CORONER: Joe Kohn, P.O. Box 906 246-5552 day or night

COORDINATOR: Sgt. Newsome; on scene: shift commander

OTHER AGENCIES: U. S. Fish and Game; California Dept. Fish and Game; resorts

HOSPITAL: Mercy, Reading, Ca. 96001 241-2121 (15 mi.)

(*facility has eight fully equipped boats and personnel)

SAN LUIS RESERVOIR, O'NEILL FORBAY AND LOS BANOS DETENTION

DEPT. PARKS & REC. - Thomas L. McKnight, Supervising Ranger, P.O. Box 991, Los Banos, Ca. 93635 209/826-1196

SAR responsibility at resource: Thomas L. McKnight

SAR TEAM

Merced County Fire Dept.
525 H Street
Los Banos 826-2895 or 2333

Merced Co. Sheriff Dept.
945 5th St.
Los Banos 826-0127 or 0128

CORONOR: Kenneth Riggs, Merced Ca. 723-0421 days

COORDINATOR: First ranger on scene until Area Mgr., Chief Ranger or Supervising Ranger arrives. Emergency calling list (call in order).

1. Park office 826-1196
2. Claude E. Strickler, 826-0155
3. Wesley King, 826-1532
4. Les McKnight, 854-2281
5. Caleb Smith, 826-2320
6. Bruce Evanson, 826-3160

HOSPITAL* Los Banos County, 520 W. I St. 209/826-0591 (12 mi.)

LAKE SOLANO

SOLANO COUNTY PARKS - L. Dean Kastens, Director of Parks, Courthouse Annex, Fairfield, Ca. 94533 707/429-6401.

SAR responsibility at resource not assigned. No SAR TEAM.

SHERIFF: Solano Co. Courthouse, Fairfield, Ca. 707/429-6541

CORONOR: James O'Brien, 1535 Webster St., Fairfield 429-6404 day or night

HOSPITAL* Intercommunity Hosp., 1802 Pennsylvania Ave., Fairfield (95 mi.)

SKIPPER'S POINT, STONY GORGE RESERVOIR

B/R - David R. Munro, Concessionaire, Box 227, Elk Creek, Ca. 95939 916/968-5389.

SAR responsibility at resource: Sheriff's office

SHERIFF: Glenn County Sh., 543 W. Oak St., Willows, Ca. 934-4632

VOLUNTEER: David Munro, at Skipper's Point, Elk Creek (above)

U/W: Sheriff's Aqua Squad

HOSPITAL* Glenn General, 1133 Sycamore St., Willows, Ca. 934-3351 (23 mi.)

WASHOE PROJECT - STAMPEDE, BOCA, AND PROSSER CREEK RESERVOIRS

U.S. FOREST SERVICE - Troy Kurth, Recreation Officer, P.O. Box 399, Truckee, Cal. 95734 916/587-3558

SAR responsibility at resources not assigned.

Washoe Project - continued

SAR TEAM

Sierra County Sheriff
Downieville, Ca. 993-4479

U. S. Coast Guard
Tahoe City, Lake Tahoe, Ca.
583-4433

Nevada County Sheriff
Nevada City, Ca. 587-3113

CORONER: Wayne Brown, Nevada Co. Sheriff's Office

Truckee Fire Dept. 587-5521 night
587-4312 days

COORDINATOR: Appropriate county sheriff's department

U/W: U. S. Coast Guard

HOSPITAL* Tahoe Forest Hosp., Truckee 587-3541 (18 mi.)

WEAVERVILLE DISTRICT, CLAIR ENGLE AND LEWISTON RESERVOIRS

U.S. FOREST SERVICE - Russell W. Engel, District Ranger, Drawer T, Weaverville,
Ca. 96093 916/623-2121

SAR responsibility at resource not assigned; No SAR TEAM.

SHERIFF: Thomas Kelly, Weaverville, Ca. 623-2611

CORONER: George Files, Weaverville, Ca. 623-4154 days; 623-1573 nights.

U/W: Trinity County Sheriff's Dept., Weaverville, Ca. 623-2611

HOSPITAL: Trinity General, Weaverville, 623-5541 (20 mi.)
(Not equipped for treatment of severe explosion/burns)

WHISKEYTOWN LAKE

NATIONAL PARK SERVICE - Carl V. Anderson, Chief, Branch of Recreation Activities,
Whiskeytown National Recr. Area, P.O. Box 188, Whiskeytown, Ca. 96095.
916/241-6584

SAR responsibility at resource: Carl V. Anderson

SHERIFF: John Balma, Shasta County
P.O. Box 1600, Redding, Ca.
916/246-5741

CORONER: Joseph Kohn, P.O. Box 506, Redding. 246-5551 days; 243-1208 nights

COORDINATOR: Carl V. Anderson
On-scene, Senior Park Ranger

U/W: Shasta County Sheriff's office

HOSPITAL: Mercy, Clairmont Heights, Redding, Ca. 243-2121 (12 mi.)

LAKE WOOLLOMES

KERN COUNTY PARKS & RECREATION - G. P. Franey, Bus. Mgr., 1110 Golden State Ave.
Bakersfield, Ca. 93301 805/861-2345

SAR responsibility at resource: Groundsman II on duty.

SAR TEAM: Sheriff's Department, 1415 Truxtun Ave., Bakersfield 327-3392

CORONER: R. B. Gervais, 1415 Truston Ave., Bakersfield 861-2606

COORDINATOR: Kern Co. Parks & Recr. Groundsman II on duty.

U/W Sheriff's Department

HOSPITAL*: Delano Community Hosp. 1401 Garces Hwy, Delano 725-4800 (30 mi.)

G E O R G I A

ALLATOONA LAKE

COE - David Grabensteder, Resource Mgr., Box 487, Cartersville, Ga. 30120 404/382-4700

SAR responsibility at resource: Not assigned

SAR TEAM: Not formalized

COOPERATING AGENCIES:

Bartow County Sheriff Cartersville, Ga. 382-1234	Cobb County Police Marietta, Ga. 422-5420
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Cherokee County Sheriff Canton, Ga. 474-4251 (also if needed:)	Ga. Game and Fish Div. Rangers in appropriate counties
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Bartow County Rescue Squad c/o Harold Dale, C.D. Director	Cobb Co. Civil Defense James H. Ray, C.D. Director
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Cherokee Co. Rescue Squad, c/o Norman Sosebee, C.D. Director

U/W: Naval Air Sta. at Atlanta could be called if warranted.

HARTWELL LAKE

COE - William E. Smith, Asst. Resource Mgr., Hartwell, Ga. 30643 404/376-4788 (Box 278)

SAR responsibility at resource: Kenneth E. Huddleston, Supervisory Resource Ranger

<u>SAR TEAM</u>	Hart Co. Rescue Squad, Hartwell, Ga.	404/376-8515
	Anderson Co. Rescue Squad, Anderson, S.C.	803/226-6003
	Pickens Co. Rescue Squad, Pickens, S.C.	803/878-9376
	Stephens Co. Rescue Squad, Toccoa, Ga.	404/886-3515
	Fork Rescue Squad, Townville, S.C.	803/287-4882
	Tri-City Rescue Squad, Seneca, S.C.	803/882-9415
	Central Rescue Squad, Central, S.C.	803/639-2031
	Pendleton Rescue Squad, Pendleton, S.C.	803/646-7431

Hartwell Lake - continued

SHERIFFS

Hart Co., Ga. - Inman Whitaker
Hartwell, Ga. 404/376-2146
Franklin Co. Ga. Jimmy Andrews
Carnesville, Ga. 404/384-2525
Stephens Co. Ga. Bill Wilkinsen
Toccoa, Ga. 404/886-2935
Georgia State Patrol, Toccoa
Sgt. J. J. Whitmire 404/886-4949
Oconee Co., S.C. - Myron Green
Walhalla, S.C. 803/638-2451
Pickens Co., S.C. - David Stone
803/878-2421, Pickens, S.C.
Anderson Co., S.C. - E. E. Cooley
Anderson, S.C. 803/224-3464
South Carolina State Patrol, Anderson, S.C. 803/226-2565

CORONORS

Elmer Reynolds, Hart Co.
Hodges Mill Rd., Hartwell 404/376-4216
Brantly Pickett, Franklin Co.
Carnesville 404/384-4636
Cecil Savage, Stephens Co.
Toccoa 404/886-9144

Ted Durham, Westminster, S.C., Oconee Co.
803/883-7708
Doug Haynes, Pickens Co.
Easley, S.C. 803/859-5831
Wilton E. Mackey, Anderson Co.
Anderson, S.C. 803/224-0140

COORDINATOR: County sheriff where incident occurs. All above squads may respond.

HOSPITALS*: Anderson Memorial, 800 N. Fant St., Anderson, S.C. 803/224-3411
Hart County Hosp., Gibson St., Hartwell, Ga. 404/376-3921 (3 mi.)

NEW SAVANNAH BLUFF LOCK AND DAM

COE - Harold L. Parsons, Lockmaster W5-8, Rt. 1, Box 51, Augusta, Ga. 30906
404/798-4644

SAR responsibility at facility - Sheriff's Dept. Richmond, Co. 404/724-5502

HOSPITAL*: University Hosp., 1350 Walton Way, Augusta 724-7171 (10 mi.)

WALTER F. GEORGE - GEORGE W. ANDREWS LAKES

COE - Olin M. Taylor, Jr., Resource Mgr., P.O. Box 281, Ft. Gaines, Ga. 31751
912/768-2614

SAR responsibility at resource: Not assigned (Georgia Fish & Game Commission,
Alabama Marine Police and COE personnel)

SAR TEAM: Not formal - ten counties border lakes. All have rescue squads.

Barbour County, Ala
Henry County, Ala
Houston County, Ala
Russell County, Ala.

Early County, Ga.
Clay County, Ga.
Quitman County, Ga.
Stewart County, Ga.
Chattahoochee County, Ga.
Muscogee County, Ga.

HOSPITALS: One fully equipped hospital in each of seven surrounding towns.

IDAHO - CENTRAL SNAKE PROJECTS OFFICE

B/R - Robert J. Brown, Superintendent, 214 Broadway, Boise 83702 208/342-2711

SAR responsibility - not assigned. Admin. agency for storage and diversion reservoirs in S.W. Idaho and eastern Oregon. Impoundments are operated by local irrigations districts, which work with local enforcement or volunteer groups.

INDIANA

CAGLES MILL LAKE

COE - Donald C. Meyer, Ranger, RR #1, Poland, Ind. 47868 317/795-4439

STATE POLICE: (officials to contact in case of death or accident at facility)
Putnamville, Indiana 317/653-4114

CORONER: Wayne Hopkins, 703 E. Washington, Greencastle, Ind. 317/653-6262

COORDINATOR: Conservation Officer, Dept. Natural Resources

COOPERATING AGENCIES: Lieber State Park (boats and equipment)**

U/W: Indiana State Police

HOSPITAL*: Putnam County Hosp., 330 Greenwood, Greencastle 653-5121 (18 mi.)

**CAP Liaison Office (HQ COMD USAF) Grissom AFB, Inc. have held SAR practice.

MANSFIELD LAKE

COE - Donald C. Meyer, Ranger, RR #1, Rockville, Ind 47872 812/569-5252

STATE POLICE: Putnamville, Ind. 317/653-4114

CORONER: J. F. Swaim, 102 Eastwood Dr. 812/569-6687

COORDINATOR: State Conservation Officer, Dept. Natural Resources

COOPERATING AGENCY: Raccoon State Park U/W: Indiana State Police

HOSPITAL*: Clay County Hosp., Brazil, Ind. (24 mi)

HUNTINGTON LAKE

COE - Lester A. Wadzinski, Park Ranger, RR #5, Huntington, Ind. 46750 219/356-8648

SAR responsibility at resource: L. Wadzinski (lake only 900 acres)

STATE POLICE, 6215 U.S. 24, Fort Wayne, Ind. 219/432-2502

CORONER: Ed Mercks, 715 No. Jefferson 356-3320

COOPERATING AGENCY: Huntington County Sheriff Dept. Phone #911

HOSPITAL*: Huntington Hosp., 1215 Etna Ave., Huntington 219/356-3000 (4 mi.)

MISSISSINEWA LAKE

COE - Daniel N. Woodward, Park Ranger, RR #1, Box 202A, Peru, Ind. 46970 317/473-5946

SAR responsibility at resource: Not specific - Ranger, Maintenance or State

SAR PLAN: Not formal. Initiating agency notifies others, below:

COOPERATING AGENCIES:

Indiana Dept. of Natural Resources, RR #1, Box 194, Peru 317/473-6528 or
317/473-9722

Mississinewa Lake - continued

Indiana State Police, District No. 23, Peru	317/473-6666
Miami County Sheriff, 36 E. 5th St., Peru	317/473-5474
Wabash County Sheriff, 31 W. Main St., Wabash, Ind.	219/563-2148
Grant County Sheriff, Courthouse, Marion, Ind. (Notifies sheriff of county where incident occurs)	317/664-8824

COORDINATORS: James Bostwick, DNR Mgr. of Mississinewa Res. 317/473-6528
Lt. Edward Townsend, DNR 473-9722
(Either of above assigns mgmt personnel or officer)

U/W: James Bostwick and Wabash County Sheriff's Dept. Ind. State Police

HOSPITAL* Wabash County, 670 N. East St., Wabash 219/563-3131 (12 mi.)
Dukes Memorial, West Boulevard, Peru 317/473-6621 (9 mi.)
(Ft. Wayne and Indianapolis hospitals nearby if needed)

LAKE MONROE

COE - Luman B. Whittern, Area Resource Mgr., RR 4, Box 293, Bloomington, Ind. 47401
812/824-9136

Lake is leased to State - Department of Natural Resources has all responsibility.

ILLINOIS

CARLYLE LAKE

COE - Wayne L. McNair, Asst. Lake Mgr., P. O. Box 30, Carlyle, Ill. 62231, 618/594-2484

SAR responsibility at resource: Lake Manager or Acting Lake Manager

SAR TEAM:

County Sheriff and Civil Defense Corps	Ill. Dept. of Conservation
Carlyle 618/594-2252	District Supervisor
	Pocahontas, Ill. 618/669-4660

COORDINATOR: Clinton County Sheriff - above
On-scene: Deputy Sheriff

HOSPITAL* St. Joseph's, Breese, Ill. 618/526-4511 (8 mi.)

CRAB ORCHARD LAKE

US FISH & WILDLIFE SERVICE - Wayne D. Adams, Project Mgr., RR #2, Box 214,
Carterville, Ill. 62918 618/997-3344 (Crab Orchard National Wildlife Refuge)

SAR responsibility at resource: Steve Frick and the refuge fire department and
enforcement staff.

SHERIFF: Russel Oxford, Ct.H., Marion, Ill. 993-4878

CORONER: James Wilson, Ct.H. Marion, Ill. 997-1301 day or night

COOPERATING AGENCIES: Little Egypt Divers, Marion. c/o Bob Blankenship 993-2426
Cambria Fire Dept, Cambria., Ill. 985-2981

HOSPITAL* Marion Memorial Hospital 993-2126 (5 mi.)

REND LAKE

COE - Phillip K. Jenkins, Park Mgr., P.O. Box 400, Benton, Ill. 62812 618/724-2493

SAR responsibility at resource: Not assigned

SAR TEAM:

III. Dept. of Cons., Law Enf. Div.
R. #37, Benton, Ill. 618/438-8281

Franklin County Sheriff
Benton, Ill. 618/438-4841

Franklin Co. Civil Defense
RR #2, West Frankfort 618/937-1625

Jefferson Co. Sheriff
Cth., Mt. Vernon, Ill. 618/242-2141

POLICE: Illinois State Police, District 13, DuQuoin 542-2171

CORONER: Charles Seagle, Poulsens Funeral Home 439-6850 days; 438-2171 nights

COOPERATING AGENCIES: Jefferson County Civil Defense, c/o Jefferson Co. Fire Protection District, Mt. Vernon 618/242-2151

COORDINATOR: Lt. Larry Withrow, Ill. Dept. Cns., (above)

U/W: Jefferson County Civil Defense (above)

HOSPITAL*: Franklin Hospital, 201 Bailey Lane, Benton 429-3161 (6 mi.)

LAKE SHELBVILLE

COE - Charles L. Kennedy, Park Ranger, Box 26, Shelbyville, IL 62565 217/774-3951

SAR responsibility at resource: Not assigned

SAR TEAM: (not formal) Moultrie County Sheriff, Sullivan, Ill. 61951

SHERIFF: Bob Collins, Shelby County CtH, Shelbyville 217/774-4395

CORONOR: Jim Yockey, 421 N. Broadway 774-3931 days; 774-3227 nights

COOPERATING AGENCIES: Shelby Co. Civil Defense, Ct.H, Shelbyville 774-5003
Moultrie Co. Civil Defense, CtH., Sullivan 728-8841

U/W: Glenn Ruff, 1109 N. Morgan, Shelbyville 774-2931

HOSPITAL* Shelby Co. Memorial, Shelbyville 774-3961 (Initial care only)

IOWA

CORALVILLE LAKE

COE - John V. Story, Park Mgr., Iowa City, Iowa 52240 319/338-3543

SAR responsibility at resource: John M. Sederwell and John H. Duffield, Park Tech.

SAR TEAM: Johnson Co. Sheriff Iowa State Conservation Comm
Iowa City 319/338-7807 RR #1, North Liberty 319/628-6300

COORDINATOR: Johnson County Sheriff/deputy sheriff on-scene

U/W: Paul Welsh, Jr., 2229 Arizona Ave., Iowa City 319/338-6976
HOSPITAL*: University Hospitals, Iowa City 356-1616 (5 mi.)

RATHBUN LAKE

COE - Robert L. Hiatt, Project Jgr., Route 3, Centerville, Io. 52544 515/647-2411

SAR responsibility at resource: Not assigned

SAR TEAM: Iowa Conservation Com.
RR #2, Moravia, Io. 52571
515/724-3304

Monroe Co. Sheriff, Dennis Carr
Albia, Iowa

Appanoose Co. Sheriff, Montelle Morrow
CtH., Centerville, Iowa
515/856-6192

Lucas Co. Sheriff, Wayne Swanson
Chariton, Iowa

Wayne Co. Sheriff, Jess Hook
Corydon, Iowa

(Sheriff Department of county where incident happens is called first)

CORONER: M. G. Parks, MD, County Med. Exam., 317 N. 13th, Centerville 515/85603273

COOPERATING AGENCIES: Coast Guard Auxiliary at Centerville, Iowa
Centerville Fire Dept.

HOSPITAL* St. Joseph's Mercy, 708 S. Main, Centerville 856-6301 (10 mi.)

RED ROCK LAKE AND DAM

COE - James E. Wilkinson, Park Mgr., P.O. Box 48, Pella, Iowa 50219 515/842-2191

SAR responsibility at resource: Not assigned

SAR TEAM: Marion County Sheriff's Dept., Knoxville, Iowa 842-4141

COOPERATING AGENCIES: U.S. Coast Guard Auxiliary, Knoxville; Iowa Cons. Comm.

COORDINATOR: Lee Shives, Sheriff

HOSPITAL: Pella Community Hosp., 404 Jefferson, Pella 628-3150 (6 mi.)
(Capability not known)

KANSAS

CHENEY RESERVOIR

WICHITA WATER DEPT - Gerald Hall, Water Supply Spvr., 104 So. Main, Wichita

SAR responsibility at resource: Not assigned

SAR TEAM: Kingman County Sheriff's Dept. Reno County Sheriff's Dept.
Kingman, Ks. Hutchinson, Ks.

Kansas Fish & Game Dept., Pratt, Ks.; State Parks & Recreation Dept.

Sheriff's Department, Sedgewick Co., Wichita, Ks.

COOPERATING AGENCIES: Sedgewick Co. Fire Dept; Red Cross on weekends

HOSPITALS* Wichita and Hutchinson (both approx. 25 mi.)

KANAPOLIS LAKE

COE - C. E. Wells, Project Mgr., Route 1, Marquette, Ks. 67464 913/546-2242

SAR responsibility at resource: Not assigned

SAR TEAM: Saline County Rescue Unit, c/o Sheriff, 251 N. 10th, Salina, Ks.

SHERIFF: Above, and
Raymond Thomas, Ellsworth County, 206 Court, Ellsworth. 913/472-3961

CORONER: Dr. F. A. Dlabal, Wilson, Ks. 648-2400 days; 658-2410 nights

U/W: Saline County Rescue

HOSPITAL: Lindsborg Community Hosp., W. Lincoln St., Lindsborg 227-3308 (18mi.)

MARION LAKE

COE - C. G. Wilson, Project Mgr., Box 69, Marion, Ks. 66861 316/382-2114

SAR responsibility at resource: Not assigned

SAR TEAM: Marion Co. Sheriff Office Kansas Fish & Game Commission
Marion, Ks. 316/382-2144 Pratt, Ks.

ENFORCEMENT: Charles Schmidtberger, Game Protector, Marion, Ks. 382-2803

CORONER: Roving doctors - Marion County.

HOSPITAL: St. Lukes, Marion, Ks. 316/382-2177 (5 mi.)

MELVERN LAKE

COE - Emil J. Kroutil, Project Mgr., RR #2, Lebo, Ks. 66856 913/549-3414

SAR responsibility at resource: Not assigned

SAR TEAM: Osage Sheriff Office Kansas Fish & Game Comm.
Lyndon, Ks. Lyndon, Ks.
828-3344

SHERIFF: Robert E. Masters, Osage County, (above)

COORDINATOR: Robert Masters; On-scene, Emil Kroutil

HOSPITAL: St. Francis, Topeka, Kansas 913/354-8411 (39 mi.)

MILFORD LAKE

COE - L. E. Brown, Project Mgr., RR #3, Junction City, Ks. 66441 913/238-5714

SAR responsibility at resource: J. M. Blevens, Chief Ranger

SAR TEAM: Project Personnel and Geary County Sheriff's Department .

SHERIFF: Jim Gross, Ct.H., Junction City, Ks. 913/238-2261

HOSPITAL: Geary Co. Community, St. Marys Rd., Junction City (7 mi.)

LAKE PERRY

COE - Lynn C. Myers, Park Manager, RR #1, Perry, Ks. 66070 913/597-5144

SAR responsibility at resource: Carl Eisenhower, Jefferson Co. Sheriff, with full cooperation and assistance of COE project personnel.

SAR TEAM: Jefferson Co. Sheriff Dept. Oskaloosa, Ks. 913/863-2351 Kansas Highway Patrol Topeka, Ks. 913/296-3102

Kansas Fish & Game Pratt, Ks. 316/672-6473 Army Nat'l Guard (Air Search) Topeka 913/862-1234, Ext. 4696 or 342-0001

SHERIFF: as above

CORONER: R. R. Snook, M.D., McLouth, Ks. 913/796-2800 days; 796-2960 nights

COOPERATING AGENCIES: Shawnee Co. Civil Defense, Topeka 913/357-1241 Or 235-9261 Jefferson Co. Civil Defense, Oskaloosa, c/o Orin Turner 913/863-2351

COORDINATOR: Carl Eisenhower; On-scene, Lynn C. Myers

(Concessionaires are required to provide emergency service, but not search capabil.)

U/W: Shawnee Co. Civil Defense

HOSPITAL: Lawrence Memorial, 325 Main, Lawrence, Ks. 913/843-3680 (14 mi.)

POMONA LAKE

COE - James H. Thurman, Chief Ranger, Rte #1, Vassar, Ks. 66543 913/453-2201

SAR responsibility at resource: Howard R. Bagby, Project Manager

SAR TEAM: Osage County Sheriff's Dept. Forestry, Fish & Game Lyndon, Ks. 828-3344 Lyndon, Ks. 828-3344

State Park Authority, Pomona State Park

CORONER: Dr. Paul Adams, Osage City, Ks. 528-1622

COOPERATING AGENCIES: North Shore Marina, c/o Lewis Loder, Quenemo, Ks. 453-2240 Light House Bay Marina, c/o Lawrence Stadel, Lyndon 838-4777

COORDINATOR: Robert Masters, Osage Co. Sheriff - On-scene, Mickey Ordonez

U/W: Lawrence Stadel (above) John Earnhart, Osage City 528-1643

HOSPITAL: Ransom Memorial 13th & S, Main, Ottawa, Ks. 242-3344 (20 mi.)
(Not equipped for treatment of major explosion/burns)

TUTTLE CREEK LAKE

COE - J. E. Johnston, Project Mgr., RR 4, Manhattan, Ks. 66502 913/539-8511

SAR responsibility at resource: Frank Funk, Chief Ranger

SAR TEAM: Kansas Forestry, Fish & Game, Pratt, Ks. 913/539-2391
Riley County Sheriff Dept. 537-2112
COE personnel, c/o J. E. Johnston (above)

Tuttle Creek Lake - continued

SAR TEAM - continued: Manhattan Fire Department
Pottawatomie County Sheriff 457-3481

Reporting: Stan Curtis, Mgr. Kansas State Park Authority, RR 4, Manhattan 539-7941

COORDINATOR: J. E. Johnston; on-scene, first authorized person.

U/W: Dr. King 913/539-4851; Fire dept. called only if absolutely necessary.

HOSPITAL* Memorial Hospital, Manhattan (7 mi.)

BARRON RIVER LAKE

COE - Neil A. Connell, Resource Mgr., Rte. #2, Glasgow, Ky. 42141 502/646-2055

SAR responsibility at resource: Neil A. Connell

SAR TEAM:

Ky. Dept. of Trans, Div. Water Safety Barren Co. C.D., c/o Levy Belcher
Rte #1, Scottsville 502-62204426 112 Shelia Dr., Glasgow 502/651-3470

Scottsville-Allen Co. C.D. Barren River Lake State Resort Park
Colonial Manor, Scottsville 502/237-4745 Lycus, Ky. 502/646-2151

SHERIFF: William Minix, City-County Bldg, Scottsville 502/237-4733

CORONER: Buell Wheat, Southwest Park, Scottsville 502/237-3135 days; 4733 nights

COOPERATING AGENCIES: Bowling Green-Warren Co. C.D. & Rescue Sqd. (radio contact)
Butler Co. C.D. & Rescue Squad. (radio contact-Morgantown, Ky.)
(Concessionaires are used in radio contact)

COORDINATOR: Neil A. Connell; on-scene, Steven E. Furlong

U/W: Julian Pete Owens, Morgantown Rd., Bowling Green 502/843-9611
COE, 115 E. Market St., Leitchfield, Ky. 502/259-4195

HOSPITAL: T. J. Samson Community H., N. Jackson Hwy, Glasgow 651-6171 (15 mi.)
(Not equipped for treatment severe explosion/burns)

FISHTRAP LAKE

COE - James E. Downs, Resource Mgr., Rt #1, Box 501, Shelbiana, Ky. 41562 606/437-7496

SAR responsibility at resource: Not assigned

SAR TEAM: No formal plan - Pike County Rescue Squad, Pikeville, Ky. 432-2116
- COE personnel assists if needed

SHERIFF: Bill Deskins, Pikeville, Ky. 606/437-4057

CORONER: Mr. Hall, Pikeville, Ky.

U/W: James E. Downs (above 437-7456 or 7668)

HOSPITAL* Methodist, Pikeville, Ky. 437-7361

GRAYSON LAKE

COE - James F. Napier, Resource Mgr., Rte #2, Box 74-A, Grayson, Ky. 606/474-5815

SAR responsibility at resource: James F. Napier

POLICE: State Police, Ashland, Ky. 606/928-6421

CORONER: Billy Oney c/o Oney's Funeral Home, Grayson 474-5114 day or night

HOSPITAL* Kings Daughter, Ashland 606/325-7755 (30 mi.)

GREEN RIVER

TVA - Robert L. Wood, Lt. Public Safety, Box 800, Drakesboro, Ky. 42337 502/476-8355

SAR responsibility at resource: Not assigned

SAR TEAM: Muhlenberg Co. Sheriff's Dept. Central City Rescue Squad
c/o Bill Cornelius - Sheriff .. City Bldg, Central City
H: 338-5393 O: 338-3345 754-2464

CORONOR: Charles Nelson, Hwy 81, Bremen 525-3464 day or night
U/W: Central City Rescue Squad

HOSPITAL*: Muhlenberg Community, Greenville 42345 338-4211 (15 mi.)

KENTUCKY LAKE

TVA - Lt. Edwin Jones, Pub. Safety Svc, P.O. Box 7, Kentucky Dam, Gilbertsville, Ky.
42044 502/362-4221

SAR responsibility at resource: Not assigned

SAR TEAM: Marshall Co. Rescue Sqd. Ky. State Police
101 E. 11th St. Folsomdale 502/856-3121
Benton, Ky. 42025 502/527-2741

Marshall Co. Sheriff-Jerry English Ky. State Boating Div.
Benton 502/527-2221 Calvert City 502/395-4245

CORONER: Jess Collier, Benton 527-2821 day or night

COORDINATOR: First Public Safety Officer, TVA, that arrives.

HOSPITAL: Benton Municipal, 300 #. 9th St., Benton 527-8633 (15 mi.)

ROUGH RIVER LAKE

COE - George A. Hall, Resource Mgr., Falls of Rough, Ky. 40119 502/257-2061

SAR responsibility at resource: Not assigned

SAR TEAM: Grayson Co. Rescue Units Breckenridge Co. Rescue Units
c/o Leitchfield Police Dept. c/o Breckinridge sheriff
259-3850 756-5136

Rough River Lake - continued

SAR Team: Hart County, Ohio County, Edmonson and Davies County (radio contact)

U/W: Bob Barnett, Leitchfield

HOSPITAL* Breck Memorial, Hardinburg, Ky. 756-2124 (15 mi.)

M I N N E S O T A

LEECH LAKE DAM

COE - Orin C. Henderson, Dam Tender, Federal Dam, Minn. 56641 654-3145

SAR responsibility at resource: Not assigned

SAR TEAM: Cass County Water Safety Patrol, Walker, Minn. 547-1424
c/o Sheriff

CORONOR: Dr. Pelzl, Pine River, Minn. 587-4416

U/W: Robert Paul, Longville, Minn. 363-2075

HOSPITAL: Community Memorial, Deer River, Mn. 246-8244 (28 mi.)
(Not equipped for treatment severe explosion/burns)

PINE RIVER DAM

COE - Walter F. Hermerding, Dam Op., Pine River, Res., Crosslake, Mn. 56442 218/692-4488

SAR responsibility at resource: Walter Hermerding (only within local Recreational Area (COE) shore area.

SAR TEAM: Crow Wing Co. Sheriff Office Civil Air Patrol
Brainard, Mn. (Chas. Warnberg) Star Route, Deerwood Mn. 56444
Chief: Eugene Stanich 218/546-6251

ENFORCEMENT: John W. Backdahl, Chf. Police
Crosslake, Minn. 692-3016 or 568-8131

CORONOR: Dr. James Nixon, Crosby, Mn. Hospital 218/546-5158 days 534-3166 nights

COOPERATING AGENCY: Moberg Ambulance Svc. Terry Moberg, Brainard 218/829-8767
Crosslake Fire Department

COORDINATOR: Sheriff Warnberg, Crow Wing County Jail, Brainerd 218/829-4749

U/W: Bill Matthies, 418 N. 3rd, Brainerd 829-2977 or 963-7930

HOSPITAL* Cuyuna Range District Hosp., Crosby Mn. 56441 218/546-5147 (21 mi.)

POKEGAMA LAKE

COE - Clarence Bernardson, Dam Oper., Pokegama Dam, 3810 W. Hiway #2, Grand Rapids, Minnesota 55744 218/326-6128

SHERIFF: John P. Muhar, 18 1st Ave., S.W., Grand Rapids 326-3477

CORONOR: Dr. L. E. Karges, Itasca Clinic 326-6613 days; 326-3477 nights

COOPER. AGENCIES: Grand Rapids and Cohasset Fire Departments
HOSPITAL* Itasca Memorial, 126 S.E. 1st Ave., 326-3401 (3 mi.)

SANDY LAKE DAM

COE - Donald Daly, Dam Op., Box 192, Rte 4, McGregor, N. 55760

SAR TEAM: Aitkin Rescue Squad, c/o Sheriff, Aitkin, Mn. 927-2138 or 3993

CORONER: Ivan Sorienson, Aitkin 927-2828

COORDINATOR: Bill Sobey, Aitkin Sheriff

HOSPITAL* Aitkin Community Hosp. 927-2121 (35 mi.)

WINNIBIGOSHISH

COE - Irving L. Seelye, Dam Tender, Inger Route, Deer River, Mn 56636 218/246-8107

SAR responsibility at resource; SAR Team - None

SHERIFF: Russell Johansen, CtH., Grand Rapids, Mn. 326-3477

CORONER: Dr. L. Karges, Cth., Grand Rapids, Mn.

U/W: Sheriff Depts, Grand Rapids and Walker, Minn.

HOSPITAL*: Deer River Community Hosp., 246-8244 (14 mi.)

MISSISSIPPI

ARKABUTLA LAKE

COE - Thomas H. Hearn, Asst. Park Mgr., Rte 1, Box 105, Coldwater, Ms. 38618
601/562-6261

SAR responsibility at resource: not assigned

SAR TEAM: Tate Co. Rescue Squad DeSoto Co. Rescue Sqd.
Senatobia, Ms. 562-4434 Hernando, Ms. 368-3041

SHERIFF: Joe Taylor, 404 East Tate, Senatobia 562-4434

U?W: Tate Co. Rescue Squad

HOSPITAL*: Baptist, 899 Madison Ave, Memphis 901/522-5252 (40 mi.)

ENID LAKE

COE - Robert S. Williams, Park Mgr., P.O. Box 151, Batesville, Ms. 38606 601/563-4571

SHERIFF: L. A. Jones, Water Valley, Ms 601/473-2722

NO PLAN - SAR coordinator would be Park Mgr, with COE personnel.

HOSPITAL*: Batesville Hosp., Batesville, Ms. 601/563-7681 (12 mi.)

GRENADE LAKE

COE - Tom Norton, Lake Mgr., Box 903, Grenada, Ms. 38901 601/226-5911

SAR responsibility at resource: Don Gober, Ranger

SAR TEAM: Grenada Rescue Squad
c/o Fire Dept 226-1313 Miss. Water & Boat Safety Comm.
Oxford, Ms. (Howard Davis) 234-9445
Grenada, Ms. (Charles Clark) 226-5714

Grenada Co. Civil Defense
City Hall 226-1076

SHERIFF: Jessie Strider, Grenada 226-2721

CORONER: L. R. Holland, Kershaw, Grenada, Ms. 226-2979 day or night

ON-SCENE: Floyd Methvin, Asst. Resource Mgr.

HOSPITAL*: Grenada County - Grenada 226-8111 (6 mi.)

OKATIBBEE DAM & LAKE

COE - William B. Pennington, Resource Mgr., P.O. Box 98, Collinsville, Ms. 39325
601/626-8431

SAR responsibility at resource: William Pennington or A. F. Seals (Asst.)

SHERIFF: Everett Keller, Cth., Meridian 693-1881

COOPERATING AGENCIES: Miss. Boat & Water Safety Commission
Miss. Game & Fish Commission
Pat Harrison, Waterway District

Fairme de Leuse

MISSOURI

COE - Virgil L. Peterson, Proj. Mgr., Box 17, Hermitage, Mo. 65668 417/745-6411

SAR responsibility at resource: Sg. Dale Crow, Pittsburg, Mo. (Mo. Water Patrol)

SAR TEAM: Springfield Civil Defense Agency SAR:

U/W: E. L. Chadick, Director 831-3567 James R. Fink, Co-Capt.
Dan Herman, Captain 831-3567 Austin Brown, Lt.

SHERIFF: Verl Kennedy (Hickory Co.) Hermitage 745-6415

CORONER: Gilbert Hathaway, Wheatland, Mo. 282-5534

ON-SCENE: Virgil L. Peterson, COE

HOSPITAL*: Sac Osage Osceola, Osceola, Mo. (32 mi.)

STOCKTON LAKE

COE - George P. Ramirez, Proj. Mgr., Rte 1, Stockton, Mo. 65785 417/276-3114

SAR responsibility at resource: Jack Haun, Chief ranger

SAR TEAM: Sheriff's Offices, Cedar County 417/276-3211 React Grp. 637-5344
Dade County 637-5344 Alert Grp. 276-3211
Polk County 326-7684

Missouri Conserv. Comm., Stockton 876-4625
Missouri Boat Comm., Stockton 276-3254
Missouri State Hwy Patrol, Stockton 276-3211

Stockton Lake - continued

HOSPITAL* Cedar Co. Memorial, Eldorado Springs 417/876-2511 (22 mi.)

TABLEROCK LAKE

COE - Richard B. Groufs, Res. Engr., Branson, Mo. 65616 417/334-4104

SAR responsibility at resource: Not assigned

SAR TEAM; Green County Sheriff Dept.; Missouri Water Patrol

COORDINATOR: Missouri Water Patrol officer On-Scene - First Federal officer/ranger.

HOSPITAL* Scaggs Memorial, Branson, Mo. 65616 334-3155 (8 mi.)

LAKE WAPPAPELLO

COE - William N. Harris, Park Mgr., Box 86, Wappapello, Mo. 63966 314/755-8562

SAR responsibility at resource: Not assigned

SAR TEAM: Poplar Bluff & Butler Co. C.D. Wayne County Rescue Squad
Poplar Bluff 314/785-7390 Williamsburg, Mo.

Lloyd Miler, 1118 Pershing Stodard Co. Rescue Unit
Poplar Bluff 785-3538 Dexter, Mo. 314/625-4515

Luther Tibbs, Wayne Co Sher., Ct.H., Greenville, Mo. 314/224-3319

CORONER: Marvin Bowles, Piedmont, Mo. 314/223-7475

COORDINATOR: Jim McDaniel, Mo. State Water Patrol, Wappapello 755-8422

HOSPITAL* Lucy Lee, Poplar Bluff 785-7721 (19 mi.)

MONTANA

HUNGRY HORSE RESERVOIR

B/R - Neil Chapin, Chief of Oper., Hungry Horse Project, Hungry Horse, Mt. 59919
406/387-5241

SAR responsibility at resource - not assigned.

SAR TEAM: Search & Rescue Flathead Rescue & Life Saving
Kalispell, Mt. 59901 Kalispell, Mt. 406/756-3691
406/756-6077

Chuck Brooks (acc. report) North Valley Rescue Assn., Columbia
District Ranger, Forest Svc. Falls 406/892-3256
Hungry Horse Dist. 387-5243

CORONER: Al Rierson (County Sheriff) Kalispell 406/756-3691

U/W: Flathead SAR and North Valley Rescue Assn.

HOSPITAL* North Valley, Whitefish, Mt. 406/862-2501 (21 mi.)

NEVADA

RYE PATCH STATE RECREATION AREA

State Park System - David L. Neasham, District Ranger, 201 S. Fall St., Nye Bldg.,
Room 221 702/885-4379 Carson City, Nev. 89701

SAR responsibility at resource: Robert Urwin, Star Route, Lovelock, Nev. 89419

SAR TEAM: Pershing County Sheriff's Office, Lovelock, Nev.
U/W: Same

HOSPITAL*: Washoe Medical Center, Reno, Nev. (150 Mi.)

LAHONTON STATE RECREATION AREA

Same as above -

SAR responsibility at resource: Darrell Craig, RR 16799, Lahontan Dam, Fallon, Nev.

SAR TEAM: Lyon County Sheriff, Yerington, Nev.
Churchill County Sheriff, Fallon, Nev.

HOSPITAL*: Washoe Medical Center, Reno, Nev. (150 mi.)

NEW MEXICO

ABIQUIU DAM

COE - Lyman E. Reynolds, Res. Supt., Star Rte. 2, Box 8, Abiquiu, N.M. 87510 505/685-2234

SAR responsibility at resource: not assigned SAR TEAM: None

SHERIFF: Emilio Narranjo, Cth., Tierra Amarilla 588-7218

COORDINATOR: Lyman E. Reynolds On-Scene: COE personnel on duty

HOSPITAL: Espanola Hosp., Espanola, N.M. 505/753-7111 (30 mi.)
(Not equipped for treatment severe explosion/burns)

COCHITA LAKE AND DAM

COE - Jerry L. Hammers, Res. Supt., P. O. Box 1238, Cochita Resident Office, Pena Blanca, N.M. 87041 505/242-8302

NOTE: At reply date still under construction, not operational until July, 1975.
Intends to have formal plan including Sandoval Sheriff's Office and New Mexico State Parks and Wildlife Dept. for Marine S&R by that time.

SAR responsibility at resource: Edward H. Shirely, Park Tech.

SHERIFF: Robert C. Holland, Deputy, P.O. Box 156, Cochita Lake 505/465-2394

HOSPITAL*: St. Vincent's, Santa Fe, N.M. (40 mi.)

COOPERATING AGENCIES: Contact has been made with CGAUX for training and assistance.

CONCHAS LAKE

COE - Robert A. Buchhagen, Res. Supt., P.O. Box 1027, Conchas Dam, N.M. 88416
505/868-2221

SAR responsibility at resource: Not assigned - (N.M. State Parks resp.)

REPORTING: New Mexico State Police, Tucumcari 461-3300

CORONER: Leroy Rogers, 600 Reynolds, Las Vegas, N.M. 87701 425-3511

COOPERATING AGENCIES: Conchas Fire Dept. USCG Aux. Flotilla 33
Conchas Dam 868-9910 Conchas Dam 868-2225 or 2964
Loyd Satterfield, Chf. R. Buchhagen, FC

U/W: N.M. State Police

HOSPITAL: Dan Trigg Memorial, Tucumcari (35 mi.) (limited capability)

NORTH CAROLINA

FONTANA LAKE

TVA - Willard M. Hawk, Lt., P. O. Box 1177, Fontana Dam, N.C. 28733 704/498-2383

SAR responsibility at resource: Not assigned

SHERIFF: Graham County, Melvin Howell, Robbinsville, N.C. 704/479-3352

CORONER: Wallace Smith, Robbinsville 479-8342

VOLUNTEERS: Graham County Rescue Squad Swain County Rescue Squad
Gen.D., Robbinsville Gen. D., Bryson City
704/479-3512 488-2385
c/o Modeal Walsh c/o Kermit Marcus

HOSPITAL: Swain County, Bryson City 704/488-2155 (35 mi.)

HIWASSEE

TVA - Ralph J. Popejoy, Lt., Hiwassee Dam, Rte 4, Murphy, N.C. 28906

SAR responsibility at resource: Not assigned

SAR TEAM: Polk Co. Rescue Squad Monroe Co. Rescue Squad , Sheriff Dept
c/o Loyd Payne, Sheriff Dept. P.O. Box 51, Madisonville, Tn.
Benton Tn. 615/338-5928 615/442-2213

McMinn Rescue Squd, Sheriff's Dept.
Box 214, Athens, Tn. 615/745-6666

SHERIFF: Blaine Stalcup, Murphy County, Murphy, N.C. 837-2521

CORONER: J. B. Hall, Andrews Road, Murphy, N. C. 837-6031

COORDINATOR: Curtis B. Sauer, TVA, 105 WCB, Knoxville, Tn. 37902 615/637-3276
On-scene, Lt. Ralph J. Popejoy

HOSPITAL: CoperBasin, Copper Hill, Tn. (23 mi.) - not equipped for severe burn treat

W. KERR SCOTT DAM AND RESERVOIR

COE - James E. Mason, Resource Mgr., P.O. Box 182, Wilkesboro, N.C. 28697 919/921-3750

SAR responsibility at resource: Kenneth C. Austin, Res. Ranger; James B. Register, Ranger

SAR TEAM: Wilkes County C.D. Wilkes Rescue Squad, P.O. Box 512
Wilkesboro 919/667-28697 No. Wilkesboro, N.C. 919/838-3158

CORONOR: Eugene Wood, Rt. 2, No. Wilkesboro 696-4793 days; 838-4104 nights

COORDINATOR: Harold Brown, Captain, Wilkes Rescue Squad (above)
On-scene - next highest officer in Wilkes Rescue Squad.
U/W: Wilkes Co. Rescue Squad

HOSPITAL* Wilkes General, No. Wilkesboro 919/838-5121 (6 mi.)

NORTH DAKOTA
LAKE ASHTABULA/BALDHILL DAM

COE - Rte #1, Valley City, North Dakota 58072 701/845-2970

SAR responsibility at resource - not assigned

SAR TEAM: Valley City Rescue Squad District Game Warden
244 3rd Ave. N.E., Valley City Valley City, N.D.
701/845-2121 (Emer) 701/845-3780

SHERIFF: Barnes County, Valley City, N.D. 845-4001

CORONOR: Dr. Neil McDonald 845-2461 days; 845-1019 night

COORDINATOR: Ken Raveling, Valley City Fire Dept. 845-1700

On-scene: George Schittenhardt, Fire Dept.

CHARLES MILL LAKE

COE - Hilbert Schrack, Proj. Supt. - Bt. #1, Lucas, Ohio 44843, 419/368-4334

SAR responsibility at resource - not assigned

SHERIFF: Kenneth Fitzwiler, Ashland County, 2nd Street, Ashland, O. 419/322-3451

CORONER: Dr. Howard Wetzel, 283 S. Countryside Dr., Ashland 419/289-4142/289-0896

COOPERATING AGENCIES: Mifflin Fire Dept, Rte #4, Ashland 419/368-4444
Muskingum Watershed Cons. Dist., Charles Mill Park, Rt #4, Ashland, c/o
Eugene Vickers 419/368-6885

HOSPITAL: Mansfield General, 335 Glessner Ave., Mansfield, Oh. 44903 419/522-3411
(11 mi.)

CLARENCE J. BROWN DAM & RESERVOIR

COE - William E. Ripley, Area Resource Mgr., Degn. Del., Lebanon, Ohio 513/932-4161

SAR responsibility at resource: Ronald C. Waller, Ranger, 1920 Croft Rd., Springfield, Ohio 45503 513/325-2411

NOTE: New lake, first year of full operation 1975. A number of successful rescue operations 1974 (flooding), and at time of response work had begun on organizing a local Water Safety Council, with a marine SAR plan.

SHERIFF: Springfield, Ohio

U/W/: Mrs. Deborah Chenoweth, COE 513/932-4161

CLENDENING LAKE

COE - Earl Z. Horner, Proj. Supt., P.O. Box 116, Tippecanoe, Oh. 44699 614/658-3743

SAR responsibility at resource - not assigned
No SAR team.

SHERIFF: Robert Rensi, Cadiz, O. 614/942-2397

CORONOR: Dr. C. Evans, Cadiz 614/942-2150 days 942-2559 nights

VOLUNTEERS: Washington Township VFD Freeport VFD
Tippecanoe 658-3769 Freeport, O. 614/658-3333
c/o W. Gladman c/o Chas. Hart

HOSPITAL*: Twin City, Dennison, Ohio 614/922-2800 (12 mi.)

DELAWARE LAKE

COE - Leo M. Sansom, Proj. Supt., 3920 U.S. 23 North, Delaware, O. 43015; 614/363-4011

SAR responsibility at resource - not assigned

SAR TEAM: Delaware County Sheriff's Office Delaware, Oh. 614/369-1001

U/W: Ohio Highway Patrol

HOSPITAL*: Grady Memorial, Delaware, Oh. 43015 614/363-1156 (4 mi.)

DILLON LAKE

COE - Thomas F. Lilly, Proj. Supt., 4969 Dillon Dam Road, Zanesville, O. 43701
614/453-0671 Ext. 264

SAR responsibility at resource: Gary Every, Park Mgr., Nashport, O., and all three personnel.

SAR TEAM: Dillon State Park Personnel Sheriff, Licking County Cth.
Nashport 614/453-0442 Newark, O. 614/345-6370

SHERIFF: Jack Pennybaker, Cth, Zanesville, O. 452-3637

CORONOR: S. S. Daw, 727 Market Street 452-5011

HOSPITAL*: Bethesda and Good Samaritan; 454-4503 and 452-3644, Zanesville (5 mi)

MICHAEL J. KIRWAN DAM AND RESERVOIR

COE - Harold J. Conner, Proj. Supvr, P.O. Box 597, Wayland, Oh. 44285 216/358-2622

SAR responsibility at resource: Not specifically assigned

SAR TEAM: Portage County Sheriff's office, Cth., Ravenna, O. 678-2818

COOPERATING AGENCIES: Charleston Vol. Fire Dept., Rock Spring Road,
Charleston, Ohio 296-4443

Paris Vol. Fire Dept., Newtonfalls Rd.
Wayland, O. c/o Shearer Community Center

COORDINATOR: Officers from Park, West Branch State Park, 5708 Esworth Rd., 296-3239

U/W: Squad 22, Portage Co. Sheriff's Office, Ct. House, Ravenna 678-2818

HOSPITAL* Robinson Memorial 297-0811 (8 mi.)

MOSQUITO CREEK LAKE

COE - Ralph E. Jamison, Proj. Supervisor, 1719 St., Rt.#305 N.E., Cortland, Ohio 44410
216/637-1961

SAR responsibility at resource - not assigned

NO SAR PLAN: Corps personnel, Ohio Division Parks,, Ohio Water Div., Trumbull Co. Sheriff
Cortland-Bazetta Fire Dept.

HOSPITAL: Trumbull Memorial, Warren, Oh. (8 mi.)

MUSKINGUM WATERSHED CONSERVANCY DISTRICT

RE: Atwood, Leesville, Tappan, Clendening, Piedmont, Charles Mill, Pleasant Hill, Seneca

Charles S. Alpeter, Chief Ranger, 1319 Third St., N.W., New Philadelphia, O 44663
Muskingum Watershed Conservancy Dist., 216/343-6647

SAR responsibility at resource - Charles Alpeter

NO SAR PLAN: Volunteer Fire Depts, Sheriff's Depts, MWCD Rangers, and Marinas
cooperate - marinas usually furnish boats and equipment. (see below)

U/W: Martha Henrich, Box 53, Minerva, Oh.

ATTWOOD LAKE: Carroll Co. Sheriff - Dean Yeager
Tuscarawas Co. Sheriff - Louis Clark
Union Hospital, Dover, Ohio - 15-20 miles

LEESVILLE LAKE: Carroll Co. Sheriff - Dean Yeager
Twin City Hospital, Uhrichville, Oh. 15-20 miles

TAPPAN LAKE: Harrison Co. Sheriff - Richard Rensi
Harrison Co. Medical Center - 20 miles

CLENDENING: Harrison Co. Sheriff

PIEDMONT LAKE: Harrison, Co. Sheriff, Guernsey Co. Sheriff - Andrew Beros
Belmont Co. Sheriff - George Neff

SENECA LAKE: Guernsey Co. Sheriff Cambridge General Hospital, 20 miles

PLEASANT HILL: Richland Co. Sheriff - Thomas Weikel
Ashland Co. Sheriff - Kenneth Etzwiler
Cambridge General Hospital - 20 miles

CHARLES MILL: Same as Pleasant Hill

PAINT CREEK LAKE

COE - Ronald E. Brickey - Archie R. Lilly, Ranger, c/o Resource Mgr., Route 1, Box 287A, Bainbridge, Ohio 45612 513/365-1470

SAR responsibility at resource: Ronald E. Brickey, Ranger (Scuba)

SAR TEAM: Highland Co. Sheriffs Dept. Greenfield Police Dept.
Hillsboro 513/393-1421 Greenfield 513/981-4466

Ohio State Hwy Patrol Greenfield Area Life Squad
Chillicothe 614/775-7770

COORDINATOR: George W. Lovill, Resource Mgr., (above)

UW: Ronald E. Bridkey (above)
Scuba Club, c/o Tom McCord, 19 Evans Drive, Chillicothe, O. 614/773-1537

HOSPITAL: Greenfield Municipal 981-2116 (6 mi.)
(Not equipped to treat severe explosion/burns)

O K L A H O M A

LAKE OF THE ARBUCKLES

NATIONAL PARK SERVICE- Richard A. Blasdel, Supv. Park Ranger, c/o The Superintendent
Platt National Park, P.O. Box 201, Sulphur, Ok. 73076 405/622-3162

SAR responsibility at resource: Richard A. Blasdel; Allen B. Hill, Park Tech.

SAR TEAM: Sulphur Police Dept. Oklahoma Dept. of Public Safety
Sulphur, Ok. 622-2000 Oklahoma City 405/424-4011

Murray Co. Sheriff's Ofc-John Frantz
Sulphur, Ok. 622-5114

CORONER: Dr. James R. Turrentine, 1121 N. 1st, Sulphur 622-6155; 622-2770

U/W: Allen B. Hill and Billy F. Warren, Platt National Park, Sulphur Ok. (above)

HOSPITAL: Arbuckle Memorial, Hwy 7, Sulphur 622-3300 (9 mi.)
(Not equipped for treatment of severe explosion/burns)

BROKEN BOW LAKE

COE - Jim S. Cyrus, Resident Engineer, Rt. 1, Box 37A, Ashdown, Ar. 71822 501/898-3343

SAR responsibility at resource: Robert D. Finch, Park Manager

SAR TEAM: Dept. of Public Safety Idabel Fire Dept. c/o Bob Gilbreath
Lake Patrol Div. Idabel, Oklahoma
Box 11456, Okla. City 73111 405/286-3131

McCurtain County Civ. Defense c/o Vance Green
Idabel, Ok. 73745 405/286-3698

McCurtain Co. Sheriff's office, Idabel 405/286-3331

CORONER: Dr. Sanders, Idabel 405/286-3141

U/W: Don Sands and Ted McFarland, Idabel 405/286-2043; 286-5197

COORDINATOR: Don Sands, Dept. of Public Safety, Lake Patrol Div. (above)

HOSPITAL: McCurtain Memorial, Idabel 405/286-7623 (25 mi)
(Not equipped for treatment of severe explosion/burns)

CANTON LAKE

COE - Jimmie D. McFeeters, Resident Engineer, P.O. Box 67, Canton, Ok. 73724
405/886-2989

SAR responsibility at resource: Not assigned

NO SAR TEAM: Sheriff's Office, Watonga, Ok. 405/623-5111 for notification

U/W: Okla. Lake Patrol 405/424-4011, ext. 300

HOSPITAL: Okeene, Okeene, Ok. 822-4417 (17 mi.) (Not equipped for treatment burns)

FORT GIBSON LAKE

COE - John P. Clark, Resident Engineer, P.O. Box 370, Ft. Gibson, Ok. 74434; 918/687-3477

SAR responsibility at resource: John P. Clark (8 personnel on SAR TEAM)

SAR TEAM: U/W: Various divers through Fish and Game Dept.

Wagoner Co. Sheriff's Office, c/o Bob Mahan, 905 Author, Wagoner (Divers: Quinton Blackwell and Roy Altaffer, Wagoner)	485-3044
Mayes County Rescue Squad, c/o Basil Kating, 208 West Graham, Pryor	825-0833
Wagoner Fire Dept., 105 So. Casavar, Wagoner, c/o Chief Smalley	485-3000
Wagoner Police Dept., Same location	485-5511
Porter Fire Dept., c/o Clifford Newberry, Chief; Porter, Ok.	483-2521 or 483-3576
Coweta Fire Dept., c/o Ed Greene, Chief; Coweta	486-2177 or 486-2642
A.R. Little, Lake Crest Area (private indiv. with four men), at Lake	476-5557
Fort Gibson Lake Patrol, Harlen T. Scott #354, Rte 4, Box 290A, Tallequah	456-8728

HOSPITAL* Muskogee General, Muskogee, Ok. (16 mi.)

FORT SUPPLY LAKE

COE - James A. Holder, Proj. Mgr., Ft. Supply, Ok. 73841 405/766-2701

SAR responsibility at resource: James A. Holder

NO SAR TEAM: Sheriff, Woodward County

HOSPITAL* Woodward Memorial, Woodward, Ok. (13 mi.)

GREAT SALT PLAINS LAKE

COE - Earl V. Rodkey, Proj. Eng., Jet, Ok. 73749 405/626-4741

SAR responsibility at resource: Earl Rodkey

NO SAR TEAM: Sheriff, Delmar Coppick, Cherokee, Ok. 405/596-3259

HOSPITAL* St. Mary's, Enid, Ok. (45 mi.)

KEYSTONE LAKE

COE - Jack G. Perry, Lake Ranger, Rt. 1, Box 100, Sand Springs, Ok. 865-2621

SAR responsibility at resource: Jerry Wilson, Resident Engineer

SAR TEAM: E. A. Jackson, Patrolman Okla. Waterway Patrol 310 E. 5th, Bristow	Sand Springs Fire Dept. Sand Springs, Okla.
Cleveland Fire Dept. Cleveland, Okla.	Tulsa Fire Dept. Various sheriff's dept.

U?W: Sand Springs and Tulsa Fire Depts.

HOSPITAL: Tulsa Osteopathic, Hillcrest, St. Johns, St. Francis (25 mi.)

HEYBURN LAKE

COE - Jack Compton, Reservoir Mgr.

NO SAR TEAM: One full time Oklahoma Water Patrolman assigned to lake. SAR is a cooperative effort with State and COE. COE assists the State.

MOUNTAIN PARK DAM & RESERVOIR (Under construction)

B/R - Robert H. Welsh, Office Engr., P.O. Box 660, Altus, Ok. 73421 405/482-4340

SHERIFF: Kiowa Co. Sheriff, Herb Henderson, Hobart, Okla. 405/726-3285

HOSPITAL: Elkview General, Hobart, Okla. 405/726-3324 (12 mi.)

OOLOGAH LAKE

COE - Ray L. Kunka, Park Mgr., Box 38, Oologah, Ok. 74053 918/587-7527

SAR responsibility at resource: Pat Patterson

SAR TEAM: Oklahoma Lake Patrol Dewey, Ok. 918/534-2683	Nowata Co. Sheriff Dept., Ct.H. Nowata, Ok. 918/273-2287
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Rogers Co. Sheriff, Ct. H.
Claremore, Ok. 918/273-2287

COORDINATOR: Bill Dunlap, Okla Lake Patrol, Dewey 918/534-2683
On-scene Dave Kendall, COE

HOSPITAL: Nowata General 273-3102 Claremore 341-2565 (10-15 mi.)
(Not equipped for treatment of severe explosion/burns)

OVERHOLSER, HEFNER, AND STANLEY DRAPER

OKLA. City Game and Fish - John H. Davee, Chief Lakes Ranger, 200 N. Walker, Oklahoma City, Ok. 405/794-5010

SAR responsibility at resources: Chief Lakes Ranger

SAR TEAM: Okla. City Fire Dept; Okla City Police Dept. and Okla City Game & Fish.
(Appropriate county sheriff for reporting purposes.)

COOPERATING AGENCIES: American Red Cross, 323 NW 10th, 232-7121, c/o Charley Hartshorn
Oklahoma City Sail Boat Club
Draper Concession; Hefner Concession
Diver's Dock (private scuba organization)
Oklahoma City Fire Department (Underwater)

HOSPITALS*: All three lakes average distance 9 mi. to Oklahoma City hospitals.

TENKILLER FERRY LAKE

COE-John P. Clark, resident Engineer, P.O. Box 370, Ft. Gibson 74434 918/687-3477
Project office - Route 1, Gore, Oklahoma, 487-5298; John Vaughan, Supervisor;
120 South Walnut, Sallisaw, Oklahoma 775-4526

SAR responsibility at resource: John Vaughan (six personnel available for boat rescue)

SAR TEAM: Sallisaw Fire Dept. Sequoyah County Sheriff
John Bond, Chief 775-2771(home) Sallisaw 918/775-9951
212 W. Choctaw St., Sallisaw
775-4462 days; 775-2765 night Cookson Bend and Elk Creek Concessions

Tahlequah Fire Department
I. G. Knight, Chief; John Price, Asst
456-3131 (chief's home 456-2002; bus. 456-2421)

Dept. of Public Safety, Oliver Kaufman, Lake Patrolman
709 S. Muskogee Ave., Tahlequah 918/456-4191

Oklahoma Fish and Game Department divers

WISTER LAKE

COE - Bedford-Duncan, Ranger, Rt. 1, Wister, Ok. 74966 918/655-7206

SAR responsibility at resource: Fred Ashmore, Rt. 1, Wister

SHERIFF: Bob Sears, Ct.H., Poteau, Ok. 918/647-2317

CORONOR: R. G. Gillson, D.O., 118 S. McKenna, Poteau, Ok. 918/647-2662

COOPERATING AGENCIES: Oklahoma Highway Patrol, Poteau 918/647-2317
Poteau Fire Dept. 918/647-3110

HOSPITAL*: Leflore County Memorial, Poteau 918/647-3251 (11 mi.)

OREGON

GERBER RESERVOIR

BUREAU OF LAND MANAGEMENT - Marvin LeNoue, Dist. Mgr., P.O. Box 151, Lakeview, Or. 97630
503/545-6746

SAR responsibility at resource: Gerber Guard Station Foreman

SHERIFF: Red Britton, Co. CtH. Klamath Falls, Or. 884-0225

CORONOR: Dr. Veldon Boge, 330 Vandenberg Rd. Klamath Falls, Or. 884-0225

COOPERATING AGENCIES:

Klamath County Emer. Svcs., CtH. Klamath Falls 882-2501/219; 882-1118 Dick Suber, No. 1 882-3833 Dennie Dunkeson, No. 3 882-7689	Forest Service, Klamath Falls Robert Thompson No. 2 882-4028; 882-7761/340
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Gerber Reservoir - continued

COORDINATOR: Lost River Area Mgr. (Bureau of Land Mgmt.)

HOSPITAL: Presbyterian Inter Community, Klamath Falls 882-6311 (45 mi.)

SOUTH CAROLINA

CLARK HILL LAKE

COE - Thomas J. Lewis, Asst. Resource Mgr., Clarks Hill, S.C. 29821 803/822-3770

SAR responsibility at resource: Oscar R. Summer, Resource Mgr.

NOTES: Shortly before response to questionnaire, the Interagency Investigation Committee was formed to investigate safety provisions in relation to Clark Hill Dam and Reservoir to establish a safer atmosphere for recreation areas and effective coordination of efforts at scene of emergency related crises. An emergency phone was installed at the Resource Mgmt. Office with relay capability to Power Plant Section, to be used strictly for handling coordination of equipment and aid in emergency situations.

David C. Tordoff, Rt. 1, Box A78, Appling, Ga. 30802 541-1945, is the Chairman of the Committee. No activity had occurred at the time of the report other than formation of the team.

SAR TEAM: CGAUX Flotilla 21 McDuffie County Rescue Squad
Augusta, Ga. Thomson Ga. 595-3810

Columbia Co. Rescue Squad Lincoln Co. Rescue Squad
Evans, Ga. 863-0920 Lincolnton, Ga. 359-3924

Coordination of a number of concessionaires is in initial stages.

U/W: McDuffie and Wilkes Counties' Rescue Squads (above)
Also, Aiken County Rescue Squad if needed.

HOSPITAL*: University Hosp., 1350 Walton Way, Augusta 404/724 7171 (23 mi)

SOUTH DAKOTA

LEWIS AND CLARK LAKE

COE - Lorenz M. Fox, Chief Recreation Resource, P.O. Box 710, Yankton, S.D. 57078

SAR responsibility at resource: Max W. Brown, Launch Operator and Supervisor

SHERIFF: Yankton, S.D. 605/665-2214 Hartington, Nebr. 402/254-6451

CORONER: Dr. Jameson, Uankton 605/665-7841; 665-2979

U/W: Larry Hintgen, Yankton 665-5622 or 665-3297

COORDINATOR: H. Dale Green, Proj. Mgr., COE **On scene-** Lorenz M. Fox
HOSPITAL: Sacred Heart 605/665-9371 (5 mi.) Yankton City Ambulance Service

LAKE FRANCIS CASE

COE - James W. Sellers, Recreation/Resource Mgr., Pickstown, S.D. 57367 605/282-6521

SAR responsibility at resource - James W. Sellers

No Formal Plan

COOPERATING AGENCIES: S. D Game, Fish & Parks, Dept, Pierre, S.D. 605/224-3396
Charles Mix County Sheriff, Lake Andes, S.D. 605/487-7311
Brule County Sheriff, Chamberlain, S.D. 605/734-6511
Gregory County Sheriff, Burke, S.D. 605/775-2626
Floyd W. Reed, Civil Defense Director Dr. M.A. Schuurman, Asst. C.D. Director
549 Missouri Drive, Pickstown, S.D. 300 W. Highway 50, Wagner, S.D.
605/282-6455 605/384-5742

HOSPITAL* Wagner Community Memorial 384-3611 (12 mi.)

TENNESSEE

BOONE DAM

TVA - Walter C. Vance, Pub. Safety Svc., Kingsport, Tenn. 37663 928-4131

SAR responsibility at resource - James A. Smith, RFD 2, Blountville, Tenn.
Captain, Sullivan County Rescue Squad, Inc.

SHERIFF: John H. Bishop (Sullivan Co.), Box 305, Blountville 764-0633; 323-5121

CORONOR: Douglas C. Moore, Kingsport, Tn. 245-7198

COOPERATING AGENCIES:

Kingsport Life Saving Crew 1800 Crescent Drive, c/o C.R. Jenkins 245-5151	Bluff City Rescue Squad P.O. Box 239, Gerald S. Bennett 538-8551
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COORDINATOR: On duty crew, Sullivan County Rescue Squad

HOSPITAL* Holston Valley Community, West Ravine St., Kingsport 247-2111 (8 mi.)

CENTER HILL LAKE

COE - James F. Robbins, Ranger, Center Hill Dam, Lancaster, Tn. 38569 615/548-4521

SAR responsibility at resource - not assigned.

SAR TEAM: Dekalb County Rescue Squad White County Rescue Squad
S. Spring St., Smithville, Tn. Sparta, Tn.

Putnam County Rescue Squad Cookeville, Tn.	Warren County Rescue Squad McMinnville, Tn.
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SHERIFF: Creston Bain, Smithville, Tn. 597-4935

CORONOR: Billy Hooper, Smithville, Tn.

COOPERATING AGENCY: Ten. Wildlife Resources, Smithville 597-5896; Wayne Blair

U/W: Wayne Robinson, Rte 1, Dowelltown, Tenn.

HOSPITAL: Knowles, Smithville, Tn. 597-5715 (6-20 mi.) Not equipped for treatment
of severe explosion burns

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NATIONAL WATER SAFETY CONGRESS BURKE VA
MARINE SEARCH, RESCUE AND EMERGENCY PREPAREDNESS STUDY. (U)
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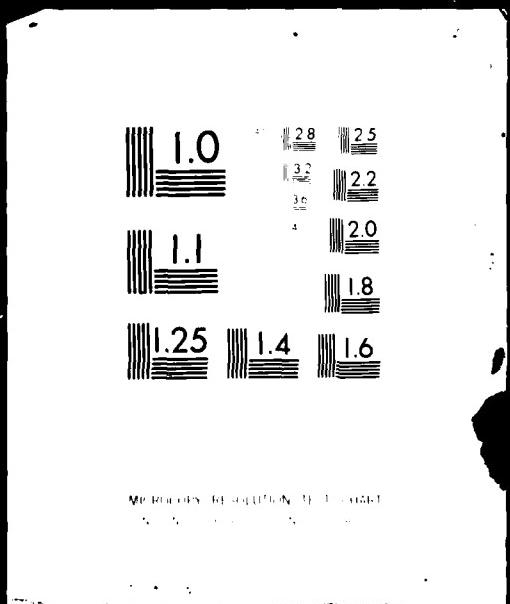
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CHEROKEE LAKE

TVA - Maxey L. Sircy, Lt., Cherokee Dam, Jefferson City, Tn. 37760 475-3136

SAR responsibility at resource - none assigned

SAR TEAM: Jefferson County Rescue Squad, Jefferson City Highway
Dandridge, Tenn. 397-3973

SHERIFF: Frank Hatmaker, Dandridge 397-2122

CORONER: Tommy F. Eslinger, Newport Hwy, Dandridge 397-2798

COORDINATOR: Charles Franklin, Jeff. Co. Res. Squad., W. Mill Springs Rd.,
Jefferson City, Tn. 475-4951
ON SCENE - Beecher Cochran, Jeff. Co. Rescue Squad

HOSPITAL* Jefferson Memorial, Bishop Street, Jefferson, Tn. 475-2091 (5 mi.)

CHATTANOOGA UNIT

TVA - Lt. Parks E. Standridge, 309 OPO, Chattanooga, Tn. 37401 755-2073

SAR responsibility at resource - not assigned

COOPERATING AGENCIES:

Hamilton Co. Rescue, P.O. Box 4891, Chattanooga 37405 615/266-2759

Volunteer State Rescue, City Hall, Red Bank, Tn. 37415 615/877-2481

U. S. Coast Guard

SHERIFF: Frank Newell, 609 Walnut St., Chattanooga 265-0481

CORONER: Geo. E. Beckman, Jr., M.D. 960 Third St. 266-0141

ON SCENE COORDINATOR: Lt. Parks E. Standridge, PS Branch, TVA

HOSPITAL* Erlanger Hospital, E. 3rd St., Chattanooga 755-7811

CHICKAMAUGA LAKE

TVA-Capt Lawrence H. Harless, P.O. Box 2000, Daisy, Tn. 37319 842-2120

SAR responsibility at resource - not assigned

SAR TEAM: Hamilton Co. Rescue, 216 E. 10th St., Chattanooga 615/266-2759

SHERIFF: Frank Newell, 609 Walnut St., Chattanooga 265-0481

CORONER: Dr. Geo. Beckman, 744 Preston Circle 266-3729; 892-3345

ON SCENE COORDINATOR: Capt. Lawrence Harless

COOPERATING AGENCY: U. S. Coast Guard

HOSPITAL* Erlanger, 241 Wiehl St., Chattanooga 755-7011 (20 mi.)

CHICKAMAUGA DAM

TVA - Lt. Leonard E. Standifer, Chickamauga Dam Hydro Plant, Chattanooga 622-0723

SAR TEAM: Hamilton Co. Rescue, P.O. Box 4891, Chattanooga 615/266-2759
Volunteer State Rescue, Red Bank City Hall, Chattanooga 877-2481

SHERIFF: Frank Newell; CORONER: George E. Beckman

HOSPITAL: Erlinger

CORDULL HULL RESERVOIR

COE - Richard H. Puckett, Resource Mgr., Rte 1, Box 62, Carthage, Tn. 37030 615/735-2244
SAR responsibility at resource: not assigned - No SAR Plan
SHERIFF: Joe Hackett, Carthage 615/735-2626
CORONOR: Edward Stailings, Sanderson Fun. 735-2118

COOPERATING AGENCIES:

Smith County Rescue Squad Jackson County Rescue Squad
Carthage 735-2118 - Jackie Carver Gainesboro 268-9639/9019 Paul Whitaker

Wildlife Resources Agency

HOSPITAL: Smith County, Carthage 735-1560 (2 mi.) (Not equipped for severe burn treatment)

DALE HOLLOW

COE - William C. O'Neal, Resource Mgr., Box 276, Calina, Tn. 38551 615/243-3136

SAR responsibility at resource: not assigned - No SAR Plan

COOPERATING AGENCIES:

Overton Co. Rescue Squad Pickett Co. Rescue Squad
Livingston, Tn. Byrdstown, Tn.

Clay Co. Rescue Squad Cumberland Co. Rescue Squad
Celina, Tn. Burkesville, Ky.

HOSPITAL: Clay County Hosp. Celina, Tn. 243-3121 (4 mi.)

CUMBERLAND RIVER

TVA - Jacob F. Strouse, Jr., Lt. PSS, Box 2000, Cumberland Steam Plant, Cumberland, Tn. 615/827-3691

SAR responsibility at resource: Not assigned - No SAR Plan

COOPERATING AGENCY: Stewart County Rescue Squad, Dalton Bagwell, Captain Dover, Tn. 232-5322 (c/o Stewart Co. Sheriff's Dept)

HOSPITAL: Houston Co. Hosp., Erin, Tn. 296-2301 (8 mi.)

DOUGLAS

TVA - Lt. Maxey L. Sircy, Cherokee Dam, Jefferson City, Tn. 37760 475-3136

SAR TEAM: Sevier Co. Rescue Squad, 227 Bruce St., Sevierville, Tn. 453-5312

SHERIFF: Carmon Townsend, 121 W. Bruce St., Sevierville 453-4668
CORONOR: Harold Atchley, Ridge Crest Estates 543-3414

COORDINATOR: John Whitehead (On-Scene) Chief - Jimmy Kyker, Rt. #1, Sevierville
Sevier Co. Res. Squad 453-8974

HOSPITAL: Sevier Co., Middlecreed Rd., Sevierville 453-7111 (12 mi.)

FORT LOUDON DAM

TVA - Lt. Virgil W. Brown, PSS P O. Box 423, Lenoir City, Tn. 37771 615/986-3737

SAR responsibility at resource: Richard J. Saylor, Public Safety Officer

Fort Loudon - continued

SHERIFF: High Sheriff, Loudon County - Guy Russell, Poplar Street 615/458-4311
CORONER: W. B. Harrison, M.D. 304 Cedar St., Loudon 615/458-2677

COOPERATING: Loudon Co. Rescue Squad, West Lee Highway, Lenoir City, Tn.
Capt. John E. Parris 615/986-2882

HOSPITAL*: Loudon Co. Memorial, Jonore Rd., Loudon 615/458-4691 (7 mi.)

LOUDON LAKE

TVA - Benjamin W. Browne, Lt. - 260A NSB, Knoxville, Tn. 37902 615/637-0101 ext. 2235

SAR responsibility at resource: Curtis B. Sauer, Chief, Public Service Branch

SAR TEAM: Knox County Rescue Squad, 512 Chilhowee Drive, Knoxville, Tn. 546-4821

M. O. Luttrell (reporting) Chief, Eastern Area, 260A NSB, Knoxville

CORONER: Dr. Fred M. Furr, Chief Medical Examiner, Univ. of Tn. 971-3011

HOSPITAL*: Presbyterian (Fort Sanders), 1901 Clinch Ave., Knoxville 546-2811 (1-1/2 mi.)

GUNTERSVILLE, NICKAJACK

TVA - Harley E. Palmer, Lt. PSS, Route 1, Jasper, Tn. 37347 615/837-6380

SAR responsibility at resource: Not assigned

SAR TEAM: Marion Co. Rescue Squad
Billy Henegar, Rt. 1
Jasper, Tn. 942-2760

South Pittsburg Rescue Service
Mutt Link, South Pittsburg

SHERIFF: Lloyd Hood, Marion Co. Jail, Jasper, Tn. 942-2525

CORONER: Herman Hall, Powells Crossroads 658-5232

HOSPITAL*: South Pittsburg Municipal, 210 W. 12th St. 837-6781 (15 mi.)

J. PERCY PRIEST RESERVOIR

COE - William G. Redmon, Reservoir Mgr., P.O. Box 2377, Nashville 615/889-1975

SAR responsibility at resource: Not specific - all rangers trained

Davidson Co. Rescue Squad

P.O. Box 4622, Nashville 226-0462

Lavergne Rescue Squad, Mr. Riley Blair
Hazelwood Dr., Lavergne 793-5823

Metro Police Dept., Metro Safety Bldg.
Nashville

SHERIFF: Rutherford County, Robert Goodwin, West Main St., Murfreesboro 893-5970
CORONER: T.E. Simpkins, M.D., 1120 Dickerson Rd., Nashville 262-2527
TENN. ARMY NATIONAL GUARD: Sidco Drive, Nashville 741-5165

HOSPITAL* Donelson, Lebanon Rd., Nashville 889-5940 (2-1/2 mi)
Smyrna, Highway 41 S., Smyrna, Tn. 459-4111

JOHN SEVIER STEAM PLANT

TVA - Walter C. Vance, Lt., PSS, Rogersville, Tenn. 37857 272-7243

SAR responsibility at resource: Don Pinkston, RFD 3, Bulls Gap Rd., Rogersville
Captain, Hawkins County Rescue Squad

SHERIFF: Dan Anderson (Hawkins County), Burem Rd., Rogersville 272-3647 or 7121

CORONER: William E. Gibbons, M.D., West Main, Rogersville 272-7116; 272-7267 home

COOPERATING AGENCIES: Bulls Gap Rescue Squad (above)
Church Hill Rescue Squad, P.O. Box 265, c/o Hobert Hudson
Church Hill, Tenn. 357-6010

HOSPITAL: Hawkins Co. Memorial, Locust St., Rogersville 272-2671 (6 mi)

KENTUCKY LAKE

TVA - Jacob F. Strouse, Jr., Lt. PSS, P.O. Box 259, New Johnsonville, Tn. 615/535-2561

SAR responsibility at resource - not assigned

SAR TEAM:

Humphreys Co. Rescue Squad 103 E. Main St., Waverly 296-2301	Stewart Co. Rescue Squad c/o Sheriff, Dover, Tn. 232-5322
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Benton Co. Rescue Squad 118 Forrest Ave, Camden 584-7444	Houston Co. Rescue Squad P.O. Box 23, Erin, Tn. 289-4614
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SHERIFF: William Bell (Huniphries Co.) Waverly, Tn. 296-2301

CORONER: Dr. W. J. McClure, South Church St., 296-2507; 296-2566

MELTON HILL DAM

TVA - Lt. Virgil W. Brown, PSS, Rte #1, Lenoir City, Tn. 37771 615/986-2053

SAR responsibility at resource: James T. Taylor, Public Safety Officer

SHERIFF: Guy Russell, Poplar Street, Loudon 615/458-4311

CORONER: W. B. Harrison, M.D. 304 Cedar St., Loudon 458-2677 458-4311

COOPERATING AGENCY: Loudon Co. Rescue Squad, Capt. John E. Parris
West Lee Highway, Lenoir City 615/986-2882

HOSPITAL: Loudon Co. Memorial, Vonore Rd., Loudon 615/458-4691 (20 mi.)

MELTON HILL LAKE

TVA - Fred J. Smith, Lt. PSS, P.O. Box 2000, Clinton, Tn. 945-2813

SHERIFF: Anderson Co., Clinton, Tenn. 457-2414

CORONER: J. D. Hatmaker, Rt. #1, Andersonville 494-9205

COOPERATING AGENCY: Anderson Co. Emer. & Rescue Squad
113 Bus Terminal Rd., Oak Ridge, Tn. 482-2644

HOSPITAL: Oak Ridge Hospital, Oak Ridge, Tenn. 482-2411 (6 mi)

MISSISSIPPI RIVER - MEMPHIS AREA

TVA - Murray McCullough, Lt., PSS, P.O. Box 9395, Memphis, Tn. 38109 901/785-7490

CITY POLICE - 128 Adams, Memphis 901/528-2222

HOSPITAL* Methodist Hospital, 1265 Union Ave., Memphis 726-7000 (10 mi.)

TENNESSEE RIVER - NICKAJACK LAKE

TVA - Leonard E. Hancock, Capt., PSS Raccoon Mtn, Chattanooga TVA Mail Room 37401

SAR responsibility at resource - not assigned (See "Guntersville-Nickajack")

SAR TEAM: Marion Co. Civil Defense, Jasper, Tn. 942-2760
So. Pittsburg Civ. Def., So. Pittsburg 837-8312
Marion Co. Rescue Squad, c/o Ralph Tate 658-5668

NORRIS LAKE

TVA - Fred J. Smith, Lt PSS, Norris Dam, Norris, Tn. 37828 494-7111

SAR responsibility at resource not assigned; no SAR team.

SHERIFF - Anderson County, Clinton, Tn. 457-2414

CORONER: J. D. Hatmaker, Rt. #1, Andersonville 494-9205

COOPERATING AGENCIES: Anderson Co. Emer. & Rescue Squad, Inc.
113 Bus Terminal Road, Oak Ridge, Tn. 482-2644
Campbell Co. Rescue Squad, c/o Sheriff's Office
Jacksboro, Tn. 562-7446

HOSPITAL* Oak Ridge Hosp., Oak Ridge Tn. 482-2441 (22 mi.)

OLD HICKORY LAKE

TVA - Paul E. Goad, Lt., PSS, Gallatin Steam Plant, Gallatin, Tn. 37066 615/452-2502

SAR TEAM: Gallatin-Sumner Co. Civil Defense, c/o James E. Canter, Director
Sumner Cth., Gallatin 615/452-7584

Tennessee Assoc. Rescue Services, c/o Portland Police Dept.
Portland, Tn. 615/325-3434

SHERIFF: Mayo Wix, Smith Street, Gallatin, Tn. 615/452-2616

CORONER: Ray Green, 122 Cole Drive, Hendersonville, Tn. 824-5559

COOPERATING AGENCY: Sumner County Volunteer Ambulance Service (equipment)

U/W: Steve Canter, Peach Valley Rd., Gallatin, Tn. 37066 615/452-9468
Lou Lacock, Scottsville Pike, Gallatin, Tn. 37066 615/452-0249

HOSPITAL* Sumner Co. Memorial, Gallatin 615/452-4210 (6 mi.)
(Emergency care only - transfer)

PICKWICK DAM

TVA - Lt. PSS, J. O. Burleson, Box 2, Pickwick Dam, Tenn. 38365 901/925-4346

SAR responsibility at resource - not assigned - no formal SAR plan

COOPERATING AGENCIES:

Hardin County Rescue Squad, City Hall, Savannah, Tn. 925-5412 or 925-2839
McNairy Co. Rescue Squad, City Hall, Selmer, Tn. c/o Clarence Roten 934-4125
Pickwick Ldg State Park Ranger, Pickwick Dam, Tn. 689-3170

SHERIFF: James Hale Savannah (Hardin County) Tn. 925-3377

CORONOR: John Broyles, Savannah 925-3371

SOUTH HOLSTON DAM

TVA - Glen M. Lowe, Lt. PSS, South Holston Dam, Bristol, Tn. 37620 764-1311

SAR responsibility at resource - Hubert H. Malone, 1621 Fairmount Ave., Bristol, Tn.
Captain, Life Saving Crew, Inc.

SHERIFF: Sullivan County, John H. Bishop, Box 305, Blountville, Tn. 764-0633

CORONOR: Douglas C. Moore, Kingsport, Tn. 245-7198

COOPERATING AGENCIES:

Bluff City Rescue Squad, Inc., P.O. Box 239, Bluff City, Tn. 37618, c/o Gerald
Bennett - 538-8551

Kingsport Life Saving Cres, 1800 Crescent Dr., Kingsport, c/o C.R. Jenkins 245-5151

WATAUGA DAM

TVA - Glen M. Lowe, Lt. PSS, Watauga Dam - Elizabethton, Tn. 37643 542-2951

SAR responsibility at resource - Cecil Freeman, Elizabethton, Tn. 37643
Captain, Carter Co. Emer. & Rescue Squad, Inc.

SHERIFF: Carter Co., Harry Buckles, Rt. 2, Elizabethton 474-2825

CORONOR: T. T. Little, 2004 State Line Rd., Elizabethton, Tn. 542-2907

COOPERATING AGENCIES:

Johnson City Emer & Rescue Squad P.O. Box 783, Johnson City c/o Andy McDonald 926-4141	Bristol Life Saving Crew Inc. P.O. Box 3105, Bristol, Tn. 37620 c/o Hubert H. Malone 6695441
U/W: Leonard Peters, Elizabethton, Tn. Teddy Reed, Elizabethton, Tn.	542-6871 542-8465

HOSPITAL: Carter Co. Memorial, Elizabethton 543-3151 (8 mi.)

WATTS BAR LAKE

TVA - Lt. Eugene Evans, Kingston Steam Plant, Kingston, Tn. 37763 615/376-9826

SAR responsibility at resource - not assigned

COOPERATING AGENCY: Robert C. Showman, P.O. Box 474, Kingston Tn. 37763
Captain, Roane Co. Rescue Squad

SHERIFF: 376-7549 CORONOR: Ralph Rose, c/o sheriff's office
CHIEF, PSS - M. O. Luttrell, 260A New Sprinkle Bldg., Knoxville 637-0101, ext. 2235
HOSPITAL: Harriman Hosp. 412 Devonia Street 882-1323 (10 mi.)

WATTS BAR LAKE - WATTS BAR DAM

TVA - Capt. C. F. Witt, PSS, Watts Bar Dam, Tn. 37395 615/365-6411

SAR responsibility at resource - Capt. C. F. Witt

SAR TEAM: Rhea County Rescue Squad, McGoffin Ave., Spring City, Tn. 3/o O. Hewett

SHERIFF: Paul Smith, Dayton, Tn. 37321 775-2442

CORONER: Olan Jewett, Hwy 68, Spring City, 37381 365-5171 or 365-6422

HOSPITAL: Rhea Co. Hospital, Dayton, Tn. 37321 775-1121 (23 mi.) limited care

TEXAS

BARDWELL LAKE

COE - J. T. Alewine, Park Mgr., Rt. 4, Box 33A, Ennis, Tx. 75119 214/875-5711

SAR responsibility at resource: Roy L. Mills and Larry Crawford (when requested)

SAR TEAM: Ellis County Rescue Unit Ellis County Sheriff's Unit
Fire Dept., Waxahachie, Tx. and State Game Management Office
Waxahachie, Tx.

HOSPITAL: Ennis Municipal, 803 W. Lumpasas, Ennis 214/875-3837 (7 mi.)
(Not equipped for treatment of severe burns)

BELTON LAKE

COE - Walter R. Mathis, Park Mgr., Box 209, Belton, Tx. 76513 817/939-5251

SAR responsibility at resource - not assigned; No formal SAR Plan.

SAR TEAM:
Belton Fire Dept. 817/939-3080 Operation Lifesaver Helicopter
203 W. Penelope, Belton, Tx. Ft. Hood, Tx. 817/685-6537

Killeen Fire Dept. 817/634-0202 Ft. Hood Special Services
Killeen, Tx. Belton Lake 817/685-5316

SHERIFF: (Bell County) 110 W. Central, Belton, Tx. 817/939-5724
CORONER: Floyd Campbell, c/o Sheriff's office, or 939-1276
COOPERATING AGENCY: Temple-Belton REACT, 202 E. Zenith, c/o E. H. Farrar
Temple, Texas 817/778-1941

HOSPITAL* Scott & White, 2401 S. 31st, Temple, Tx. 817/778-4451 (8 mi.)

BENBROOK LAKE

COE - Jimmy R. Hurt, Park Mgr., P.O. Box 26059, Ft. Worth, Tx. 76116 817/292-2400

SAR responsibility at resource - not assigned.

SAR TEAM:
Tarrant Co. Fire Marshall Ft. Worth Fire Dept.
900 N. Commerce, Ft. Worth 334-1212 705 Texas, Ft. Worth 335-7211

Benbrook Vol. Fire Dept. Texas Parks & Wildlife Dept.
Benbrook Tx. 249-1720 100 N. Univ. Dr., Ft. Worth 336-5171

REPORTING: Allie J. Majors, Chief, Operations Div., Ft. Worth Dist. COE
819 Taylor, Ft. Worth, Tx. 334-2153

Benbrook Lake - continued

U/W: Tarrant Co. Fire Marshall, Special Equipment Squad 334-1212
Ft. Worth Fire Dept. 335-7211

HOSPITAL: John Peter Smith Memorial, 1500 S. Main, Ft. Worth 926-5191 (15 mi.)

CANYON DAM

COE - C. L. Murphy, Acting Reservoir Mgr., Star Rt. 2, Box 400, New Braunfels, Tx. 78130
512/964-3341

SAR responsibility at resource - not assigned - no formal SAR Plan

COOPERATING AGENCIES:

Texas Parks & Wildlife Div., John H. Reagan Bldg., Austin, Tx. 78701 512/475-5909
Comal County Sheriff's Office, New Braunfels, Tx. 78130 512/625-9141
New Braunfels Fire Dept., 131-1/2 Sw Hill, New Braunfels 512/625-3811

CORONOR: Judge Woods, Prec. #3, Bulverde, Tx. 438-2266 or 65
Judge Kermit Schlameus, Prec. #4, Canyon Lake 964-3951 or 935-2285

VOLUNTEER AGENCIES: USAF Randolph Recreation Area, Jacobs Creek Park
Canyon Lake 512/964-3804

Fort Sam Houston Retreat, Jacobs Creek Park 964-3318

HOSPITAL: McKenna Memorial, 162 E. Austin, New Braunfels 625-9111 (20 mi.)

O.C. FISHER DAM AND LAKE

COE - Delbert A. Caffey, Reservoir Mgr., P.O. Box 3085, San Angelo, Tx. 76901 949-4757

SAR responsibility at resource - not assigned

SAR TEAM:

San Angelo Emer. Corps San Angelo Fire Dept.
601 Locust St., San Angelo San Angelo 915/653-4551
915/655-4777

Tom Green, County Sheriff's Office
915/655-8111

REPORTING: Texas Dept. Public Safety

CORONOR: Ruth Nicholson, San Angelo, Tx. 76901 655-6103

HOSPITAL: Shannon, 9 S. Magdalen St., San Angelo 915/653-6741 (6 mi)

LAKE GRANBURY

BRAZOS RIVER AUTHORITY - William T. Moore, Reservoir Division Mgr., 4400 Cobbs Drive,
Waco, Tx. 76710 817/776-1441

SAR responsibility at resource: Dwight Mahoney, 703 E. Pearl St., Granbury

SAR TEAM: Hood County Rescue Unit 817/573-3744
JUSTICE OF THE PEACE; C. T. Hughs, Drawer A., Granbury 817-573-1701 (also Coronor)

COORDINATOR: Roger Rickenbrode, Hood Co. Res. Unit, 249 Northwood Terr. 573-2226
U/W: Harold Ames, Acton, Tx. 326-4555 Danny Ames (same)

HOSPITAL: Hood Co. General, 116 S. Houston, Granbury 817/573-1131 (2 blocks)
(Limited care)

GRAPEVINE LAKE

COE - Guy Hopson, Reservoir Mgr., Rt. 1, Box 10, Grapevine, Tx. 76051 817/481-4541

SAR responsibility at resource: Philip Paraley, Ranger

SAR TEAM:

Tarrant Co. Special Equip. Squad
Fort Worth

Grapevine Rescue Squad
Grapevine, Tx.

Coast Guard Auxiliary
Grapevine Lake

Texas Parks & Wildlife Dept.
100 N. University, Ft. Worth

COUNTY POLICE DEPT: Box 17300, Ft. Worth 334-2741

ON-SCENE COMMANDER: Mason Langford, Tarrant Co. Special Equip. Squad

HOSPITAL: Grapevine Clinic, 1600 College, Grapevine (4 mi) 481-5525

EAGLE MOUNTAIN LAKE

TARRANT CO. WATER CONTROL & IMPROVEMENT DISTRICT NUMBER ONE - Charles R. Whaylen, Asst.
to Gen. Mgr, 800 E. North Side Dr., P.O. Box 4508, Ft. Worth, Tx. 76106 817/335-2491

SAR responsibility at resource: Harold Bierman, Supvr/Lake Patrol personnel

No Formal SAR Plan. Local volunteer fire departments, enforcement agencies, USCGAUX.
and other community resources are used.

HOSPITAL: Azle Community Hospital

NOTE: Basic data also applies to Lake Bridgeport in Wise County, and Cedar Creek
Lake in Henderson and Kaufman Counties, also owned by the District. Procedures
are generally duplicated at all three lakes.

Lakes are patrolled by Game Management Officers, Texas Parks & Wildlife Dept., as
they are Regulatory Lakes. A mutual cooperation effort is maintained.

HORDS CREEK LAKE

COE - Thomas L. Halfmann, Park Manager, Glen Cover Route, Coleman, Tx. 76834 915/625-2322

SAR responsibility at resource - not assigned - no formal SAR plan

AGENCIES: Texas Parks & Wildlife Dept., Coleman, Tx. 76834
Officer Roy Winburne 915/625-5158

Coleman County Sheriff's Department, Coleman, Tx. 915/625-2030

COORDINATOR: Ronald W. Pavonka, Res. Mgr., Glen Cover Route 915/625-2322

HOSPITAL: Overall-Morris Memorial, 310 S. Pecos, Coleman 625-2135 (8 mi.)
(limited care)

LAVON LAKE

COE - Charles W. Screeton, Res. Mgr., Wylie, Tx. 75098 442-5711

SAR responsibility at resource - not assigned.

Lavon Lake - Continued

SAR TEAM: Wylie Volunteer Fire Dept
Wylie, Tex.

McKinney Fire Dept.
McKinney, Tex.

Plano Fire Dept., Plano

Farmersville Fire Dept., Farmersville

Collin County Sheriff's Dept.
McKinney, Tex.

CORONER: Robert King, Wylie, Texas

COORDINATOR: Lake Project Mgr., COE On-Scene: Game Warden, Texas Parks & Wildlife

HOSPITAL: Wylie Hospital & Clinic, Wylie, Texas (7 mi.) (initial treatment only)

LEWISVILLE LAKE

COE - Michael D. Owen, Park Manager, 1801 N. Mill, Lewisville, Texas 75067 214/434-1666

SAR responsibility at resource - not assigned

SAR TEAM: Lewisville Rescue Squad
235 N. Poydras, Lewisville
214/221-2565

U.S.C.G. Aux. Flotillas 53 and 29
3027 Selma, Farmers Branch, Tx.

Little Elm Rescue Squad
214/377-2667

C. H. Johnson, Game Warden
1703 Panhandle, Denton 817/387-5352

SHERIFF: Wylie Barnes, CtH. Annex, Denton, Tx. 817/382-2313

CORONER: Robert Sparks, JP, 358 Fagg Dr., Lewisville 214/436-4785

COOPERATING AGENCIES: Dallas Rescue Squad, Dallas, Tx.

HOSPITAL* Flow Memorial, 1310 Scripture, Denton (14 mi.) 817/387-5861

LAKE LIVINGSTON

TRINITY RIVER AUTHORITY - Larry Smailhall, Asst. Mgr., P.O. Box 311, Livingston, Tx.
713/365-2292

SAR responsibility at resource - None assigned

SAR TEAM: Livingston Vol. Fire Dept.
Rescue Squad, P.O. Box 191
Livingston, Tx. 713/327-4411

Trinity County Emergency Corps
Trinity, Tx. 713/594-2081

Walker Co. Emer. Corps.
Old Hwy 75 South
Huntsville, Tx. 713/295-2954

San Jacinto Co. Rescue Squad
Coldspring, Tx. 77331
713/628-6644

HOSPITAL: Livingston Memorial, 602 E. Church St. Livingston 713/327-4381
(Not equipped for treatment severe burns)

LAKE MEREDITH

NATIONAL PARK SERVICE - Larry K. Nielson, Chief Ranger, P.O. Box 1438, Fritch, Tx. 79036
Lake Meredith Recreation Area 806/857-3151

SAR responsibility at resource - Larry K. Nielson

Lake Meredith - continued

SAR TEAM: Besides Servicewide guidelines, they have newly completed "Diving Safety Plan" which covers procedures for U/W search and recovery, and at time of study questionnaire were working on specific water related SAR plan.

COOPERATING AGENCIES:

Canadian River Sportsman's Club **USCG Aux. Flotilla 52**
J. D. Morgan, Secretary **Lloyd Bowman, CDR,**
Borger 806/273-9769 **Amarillo 806/372-1127**

HOSPITAL: North Plains, 200 S. McGee, Borger (16 - 40 mi. depending on location)
(Not equipped for treatment of severe explosion/burns)

Lake Nasworthy, Twin Buttes Reservoir

SAN ANGELO WATER DEPT. - Thomas L. Koederitz, Water Supt., Box 1751, San Angelo 76901
915/655-6397

SAR responsibility at resource - not assigned

SAR TEAM: Texas Parks & Wildlife San Angelo Emergency Corps
San Angelo 601 Locust, San Angelo 655-4777

Texas Dept. of Pub Safety San Angelo Fire Dept.
San Angelo 655-7357 653-4551

SHERIFF: Tom Green, County Ct.H., San Angelo 655-5961
U/W: Henry Lancaster, 1953 Austin, San Angelo (Mobile-915/653-2109)

HOSPITAL: Shannon, 9 S. Magdalen, San Angelo (6 mi.) 915/653-6741

Lake O' The Pines

COE - Omer L. Stafford, Mgr., Drawer W, Jefferson, Tx. 75657 214/665-2336

SAR responsibility at resource - Walter R. Thomas, Asst. Park Mgr.

Game Warden, Park & Wildlife Dept. Jefferson Fire Dept.
Jefferson, Tx. 665-2038 City Hall 665-2432

Marshall Fire Dept 935-5241

NOTE: "All small towns around lake has rescue units and some divers."

HOSPITAL: Marion County Hosp., Jefferson (9 mi.) 214/665-2561
(Might transfer to Marshall, Tx. or Shreveport, La. for treatment
of severe burns)

POSSUM KINGDOM

BRAZOS RIVER AUTHORITY - William T. Moore, Reservoir Div. Mgr., 4400 Cobbs Drive,
Waco, Texas 76710 817/776-1441

SAR responsibility at resource - Pete Crenshaw, Ranger, Star Rte., Graford, Tx.

NO FORMAL SAR PLAN - Cooperating agencies are:

Palo Pinto County Sheriff's Office 817/659-2085
Game Warden, Possum Kingdom Lake 779-3631
Civil Defense Rescue Squad, Mineral Wells 325-5762

SHERIFF: Bill Harris, Palo Pinto County (above)

CORONER: Edgar Laney, Graford, Tx. 779-2575

HOSPITAL: Graham General, 1301 Montgomery, Graham, Tx. 549-3400 (25 mi.)
(Doubtful if equipped for treatment explosion/burns)

PROCTOR LAKE

COE - Garvin E. Hendon, Reservoir Mgr., Route 1, Box 71A, Comanche, Tx. 76442 817/879-2424

SAR responsibility at resource not assigned - no SAR PLAN.

SHERIFF: Comanche Co. CtH, Comanche, Tx. 817/356-2161

CORONOR: J.P. Ottis Fields, 606 E. Grand 356-3543; 356-3124

COOPERATING AGENCIES:

DUBLIN RESCUE SQUAD c/o James Fritts DeLeon Fire Dept c/o James Otwell
107 S. Grafton 107 S. Texas

Dublin, Tx. 817/445-2211 DeLeon, Tx. 817/893-2424

U/W: Joe Waring, 520 W. Wright, Comanche, Texas 817/356-3428
John A. Johnson, Jr. 534 N. Grafton, Dublin, Tx. 817/445-2721

HOSPITAL: Comanche Community Hosp. Inc. 211 S. Austin, Comanche (7 mi.) 356-2012
(Not equipped to treat severe explosion/burns)

SAM RAYBURN RESERVOIR

COE - Aubrey J. Dry, Sr., Proj. Engr., Rte 3, Box 320, Jasper, Tx. 75951 713/384-5716

SAR responsibility at resource- Robert S. Eaves, Water Safety Ranger

Texas Parks & Wildlife Dept. Blan Greer, Sheriff Sabine County
989 Ave. A., Jasper Hemphill, Texas
713/384-2698 713/787-2216

CORONOR: Clifford Woods, J.P., Lufkin Hwy, Jasper, Tx. 384-4103
U/W: Don Ealand 600 Willow Drive, Jasper 384-2489
Ray Hilley, 605 Olive, Jasper 384-5238

HOSPITALS*: Depends on county location - all equipped

E. V. SPENCE RESERVOIR

COLORADO RIVER MUN. WATER DIST. - R. A. Schooling, Admin. Asst., P. O. Box 869
Big Spring, Tx. 79720 915/267-6341

SAR responsibility at resource - Frank Bates, Lake Superintendent

SHERIFF: Douglas Robertson, City of Robert Lee, Robert Lee, Tx. 915/453-2717
CORONOR: Roy Ross - c/o Sheriff

COOPERATING AGENCY - Volunteer Fire Dept of Robert Lee; Lake Patrol on 24 hr. duty

HOSPITAL* Coke County, Robert Lee, Tx. 915/453-2511 (4 mi.)

LAKE TAWAKONI

SABINE RIVER AUTHORITY OF TEXAS - Danny Choate, Iron Bridge Division Mgr., P. O. Box 310,
Point, Texas 75472 214/598-2216

SAR responsibility at resource - Kenneth Gowin, Chief of Security

SAR TEAM: Hunt County Sheriff Dept. : State Game Wardens
CtH. Greenville-214/455-3502 : Canton - 214/567-2467
Greenville - 214/455-6606
Wills Point Rescue Unit (Mobile rad)
Commerce Rescue Unit (Mobile rad)

U/W: Jack Bowen, Jr. Sabine River Authority and a member of Commerce Rescue Unit

HOSPITAL: Primary care available, depends on county nearest accident site.
For extensive care, would transport to Dallas.

B. A. STEINHAGEN LAKE, TOWN BLUFF DAM

COE - Charles L. Rogers, Reservoir Mgr., Box 249, Star Route 1, Woodville, Tx. 75979
713/429-3491

SAR responsibility at resource - Rangers

SAR TEAM: Tyler Co. Sheriff's Ofc. Texas Parks & Wildlife Game Wardens
Woodville, Tx. 75979 Tyler & Jasper Cos. 713-283-2172; 384-5418
Tyler Co. Vol. Fire Dept. Jasper Co. Sheriff, CtH.
Woodville 283-2172 Jasper, Tx. 384-5418

CORONOR: Judge Sturrock, County Ct. House 283-3611

COORDINATOR: Game Warden, Texas Parks & Wildlife Dept.

HOSPITAL* Jasper Memorial, 1275 S. 2nd, Jasper, Tx. 75951 384-5461 (12 mi.)
Tyler Co. Hosp., 1100 W. Bluff, Woodville 75979 283-2521 (14 mi.)

TOWN BLUFF DAM

COE - Thomas R. Thomsen, Park Ranger, Dam Project Office, Woodville, Tx. 75979 429-3491
(Additional to above)

Both Tyler and Jasper Counties have Rescue Units, through the sheriff's offices.

U/W: Jay Cruse, Tyler Co. Sheriff's Dept. 283-2172

LAKE TEXOMA

COE - Otils K. Higginbotham, Resident Engineer, Drawer A, Denison, Tx. 75020 214/465-4990

SAR responsibility at resource - Cliff N. Hayes, Park Mgr.

SAR TEAM: Okla. Highway Patrol Texas Parks & Wildlife Dept.,
Lake Patrol Div. Dist. Hdq. Rt. 2, Pottsboro, Tx. 214/786-9798
Durant, Ok. 405/924-2601

SHERIFF: O.W. Hiltfill, Ct.H., Durant, Ok. 924-3000
Woodrow Blanton, Ct.H, Sherman, Tx. 214/893-4388

COOPERATING AGENCY: Denison Fire Dept, c/o Chief George Cravens
700 W. Chestnut, Denison 465-1616

COORDINATORS: For Okla - Lt. Bill Lambert, Ok. Hwy Patrol 405/924-2601
For Tx. - Phil Halry, Tx. Parks & Wildlife 214/786-9798

HOSPITAL: Denison Memorial, 1000 Memorial Drive (3 mi.) 214/405-2313

LAKE J. B. THOMAS

COLORADO RIVER MUN. WATER DIST. - R. A. Schooling, Admin Asst., P.O. Box 869, Big Spring,
Texas 79720 915/267-6341

SAR responsibility at resource - Henry E. (Buzz) Woolsey, Lake Superintendent

SHERIFF: Keith Collier, Snyder, Tx. 79549 573-3551

CORONER: Jim Billingsley

COOPERATING AGENCY: Snyder Fire Dept, c/o Alfred Kohl 573-3546

HOSPITAL Cogdell Memorial, Snyder 573-6375 (20 mi.)

WACO

COE - Richard E. Booker, Ranger, Rt 10, Box 173F, Waco, Tx. 76708 817/756-5359

SAR responsibility at resource - senior ranger.

SAR TEAM: Waco Fire Dept., 106 Columbus, Waco, Tx. 754-5682; working with Texas Parks & Wildlife Dept., and Reservoir personnel

POLICE DISPATCHER: 300 W. Waco Drive, Waco, Tx. 756-7431

HOSPITAL* Hilcrest Baptist, 3000 Herring 756-6111 (5 mi.)

WALLACE LAKE

COE - O. L. Stafford, Mgr., Drawer W., Jefferson, Tx. 75657 214/665-2336

SAR responsibility at resource - **Bobby J. Lineberger, Drawer W., Jefferson, Tx. 75657**

SAR TEAM: Sheriff's Office, Caddo County, Shreveport, La. Cth., 318/222-0616

HOSPITAL: Schumpert Memorial, 915 Margaret Pl., Shreveport 318/424-6411 (10 mi.)

WRIGHT PATMAN DAM & LAKE

COE - James A. Carter, Jr., Park Mgr. P.O. Box 1817, Texarkana, Tx. 75501 214/838-8781

SAR responsibility at resource - James Carter and Wm. S. Alsop, Asst. Park Mgr.

SAR TEAM:

Sheriff's Dept., Bowie County Texarkana 214/794-4062 Sheriff Sabo	State Park & Wildlife Dept. Mt. Pleasant 796-2645 Gene Bruce, Game Warden
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Sheriff's Dept., Cass County Linden, Tx. 214/756-5231 Sheriff Dowd	Civil Defense Texarkana 214/743-1141 Dale Campbell in charge
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Four local Bass Clubs, with full equipment and craft.

CORONER: Ben Grieson, J.P., Bowie County Building, Texarkana 792-1331
U/W: Navy trained City policeman is available when needed.

HOSPITAL: Wadley Hosp., Texarkana 793-4511 (13 mi.)

VIRGINIA

NORTH FORK OF POUND RIVER LAKE

COE - Gerald T. Dowell, Ranger, Rt. #1, Box 369, Pound, Va. 24279 703/796-2831

SAR responsibility at resource - not assigned - no SAR TEAM

STATE POLICE - Park Avenue, Norton, Va. 679-2005
CORONER: Dr. Maurice Santurian, Pound, Va. 796-2231

COOPERATING AGENCIES: Pound Rescue Squad, Pound, Va. 796-2111
Wise County Sheriff, Wise, Va. 328-3566

COORDINATOR: President of Pound Rescue Squad U/W: Rescue Squad members

HOSPITAL: Wise Appalachian Regional, Wise, Va. 703/328-2511 (12 mi.)
(Not equipped for treatment of severe explosion/burns)

PHILPOTT LAKE

COE - M. D. Ruddle, Resource Mgr., Route 6, Box 140, Bassett, Va. 24055 703/629-2703

SAR responsibility at resource - not assigned; No SAR Plan.

SHERIFF: C. P. Witt, Henry County, Martinsville 638-8761
CORONER: Dr. John Bing, Bassett 632-2911; 629-2745

COOPERATING AGENCIES:
Bassett Rescue Squad (Volunteer) 629-5323 Fieldale Rescue Squad (Vol.) 673-6666

U/W: Bassett Rescue Squad

HOSPITAL: Memorial Hospital, Martinsville, Va. 24112 632-2911 (15 mi.)

SMITH MOUNTAIN LAKE

SMITH MOUNTAIN LAKE ASSOC. INC. - Frederic A. Munson, President Penhook, Va. 24137
927-5100

SAR responsibility at resource - Richard Dill, Water Rescue 804/927-5100

SAR TEAM: Gretna Rescue Squad Moneta Rescue Squad

Huddleston Rescue Squad U/W: Frederic Munson and Richard Dill

HOSPITAL: Rocky Mountain Hospital (20 mi.)

WASHINGTON

SNOQUALMIK NATIONAL FOREST LAKES

B/R - James W. Gilbery, Safety Officer, 1917 Marsh Rd., Yakima, Wa. 89801 509/248-4810

SAR responsibility at resources: U. S. Forest Service

RIMROCK LAKE - Tieton Ranger District; BUMPING LAKE, Naches Ranger District

SHERIFF: Yakima Co. Sheriff, Search & Rescue Unit, Cth. 509/248-3530

HOSPITAL: St. Elizabeth 248-5520 and Yakima Valley Memorial 248-1700
(40 miles from Rimrock Lake; 60 miles from Bumping Lake)

LAKE CLE ELUM, LAKE KEECHELUS, LAKE KACHESS, Cle Elum Ranger District, Kittitas County Sh.

BANKS LAKE AND ROOSEVELT LAKE

B/R - Tom G. Skordas, Safety Mgr., P.O. Box 620, Grand Coulee, Wa. 88133 509/633-1360

SAR responsibility at resource - "Local volunteer organization" not otherwise named,
provides SAR personnel.

c/o William E. Dennis, 804 Central Drive, Grand Coulee 633-1179

U/W: Several members of above team are certified. B/R diving team can be used.

HOSPITAL: Coulee Community, Grand Coulee 633-1753 (2 mi.)

COLUMBIA BASIN PROJECT

B/R - John S. Unbewust, Project Manager, P.O. Box 815, Ephrata, Wa. 98823 509/754-4611

Numerous waters in roughly 90 square miles below Grand Coulee Dam, administered by
The State of Washington, Washington State Parks & Recreation, Bureau of Recreational
and three Irrigation Districts - include lakes, reservoirs, streams and canals.

No formal SAR Plan, however, a tri-county Water Safety Council includes numerous agencies.

SHERIFF's: Grant Co., Ephrata 509/754-2011 Franklin Co., Pasco 509/545-3411
Adams Co., Ritzville 659-1122

CORONERS: Grant Co., Richard D. Zornes, Moses Lake 765-7586
Adams Co., Richard W. Miller, Ritzville 659-1121
Franklin Co., C. J. Rabideau, Pasco 545-3543

Columbia Basin Project waters - continued

COOPERATING AGENCIES: CG Auxiliaries, National Guard, CAP - coordinated through appropriate sheriff

HOSPITALS:	Odessa, Wa.	982-2611	Ritzville, Wa.	659-1200
	Soap Lake	246-2511	Ephrata	754-4631
	Quincy	787-3531	Moses Lake	765-5606
	Ellensburg	962-9841	Othello	488-2636
	Richland	946-9713	Pasco	547-7704

(None equipped with burn clinic - but good basic care available)

WEST VIRGINIA

EAST LYNN LAKE

COE - Loyal E. Smith, Resource Mgr., P.O. Box 98, East Lynn, W.Va. 25512 304/849-2355

SAR responsibility at resource - Harold Shepard, Ranger

ENFORCEMENT: Sgt. Grady Coda, Consr. Officer, W. Va. Dep. Natural Resources
Wayne, W. Va. 304/272-5911

CORONER: Virgil Mills, Rt 52, Wayne 272-5800

SHERIFF: Wayne County, 304/272-5121

COOPERATING AGENCIES: Wayne Fire Dept. 272-3211 United McGill Co.
Box 95, East Lynn 849-2711

HOSPITAL: Cabell Huntington, 1340 16th St., Huntington, W.Va. 304/696-6110 (30 mi.)

TYGART LAKE

COE - Earl Tressler, Jr., Proj. Supvr., RD 1, Box 82, Grafton, W.Va. 26354 304/265-1760

SAR responsibility at resource - not assigned - No SAR Plan

SHERIFF: Dellett Weaver, Taylor County, W. Main Street, Grafton 304/265-3428

CORONER: Percy Lucas, Grafton 265-0656

COOPERATING AGENCIES:

Grafton Fire Dept	Mr. Mark Fitzpatrick
West Main St., Grafton	Tygart Lake State Park, Grafton
304/265-1212	304/265-2024

COORDINATOR: Billy Workman, Chief, Grafton Fire Dept.

HOSPITAL: Grafton City Hosp. 304/265-0400 (4 mi.)

**DATE
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